The Resonator

Official Newsletter of The Fair Lawn (NJ) Amateur Radio Club

Volume 4, Number 9 **www.FairLawnARC.org** **September 2019**

From The President:

To FLARC members:

I hope everyone had a good summer! As Fall approaches, we are going to take advantage of the cooler weather. We will be replacing the repeater antenna sometime within the next month! We have a group of individuals from last year's antenna work party that I will be asking to help replace the antenna. If you have experience and would like to help, please send me an email.

Get your QRP and fox hunting equipment out! September 14th is Portable Day with BARA, and Fox Hunt brought to you by Karl W2KBF. Also watch for emails on the NJ QSO party and talk to Van W2DLT if you are interested in participating. On Thursday night we will continue to have the CW course taught by Fred W2AAB and George W3EH. We also have MESH on-line training with Randy WU2S September 12.

If you have a skill or knowledge related to Ham Radio, and you'd like to share with the club please contact the board and we can help setup a class time for you. If it is a hit, we can make it a series.

Brad - KM2C
FLARC President

Inside This Issue

Member Profile

NAME: **Chris Sweisberger** CALL: **W2TU**

What do you do/what did you do for a living?

I worked for Rochelle Park Township with the road department for 31 years and recently retired for medical reasons. In that time I worked to help the residents as well as business through emergencies as well as general maintenance.

What parts of the hobby most interest you?

I enjoy helping out with getting someone interested in the hobby any time I can. This has come about due to my personal background. As many know, as hard as I studied for the test, it took me many times to pass – ask me about getting my Extra!

I now have an Extra and help the club with the monthly VE sessions.

What does belonging to FLARC mean to you?
How do you/can you better contribute to the club?

When I first became interested in studying to become a ham I would go over to the club's old location on River Road and always found someone to answer my questions or show me how to figure out a problem. I've never forgotten that and it remains the best part of what FLARC is all about.

The club still is a friendly place for new and old alike to learn and grow with.

Continued on page 4.

The Club Fair Lawn ARC is the fastest growing ham club around, with five operating positions in a permanent clubhouse. Visitors and guests are always welcome. The club is open every Friday night from NLT 6:30 PM. Business meetings are the first Friday of the month at 7:30PM.

2019 Officers, Committees and Assignments

President	**Brad Kerber**	**KM2C**
Vice President	**Lowell Van't Slot**	**W2DLT**
Treasurer	**Al Rasmussen**	**WA2OWL**
Secretary	**Randy Smith**	**WU2S**
Trustee	**Skip Barker**	**KD2BRV**
Trustee	**Don Cassarini**	**N2PRT**
Field Day	**Steve Wraga**	**WA2BYX**
Member Services	**Judith Shaw**	**KC2LTM**
Publicity	**Ed Efchak**	**WX2R**
Publicity	**Gene Ottenheimer**	**WO2W**
Publicity	**Susan Frank**	**W6SKT**
Program	**Lowell Vant Slot**	**W2DLT**
Publicity	**Karl Frank**	**W2KBF**
Publicity	**Brad Kerber *(ex officio)***	**KM2C**
Social Media	**Dave Marotti**	**NK2Q**
Video/YouTube	**Thom Guida**	**W2NZ**
VE Liaison	**Gene Ottenheimer**	**WO2W**
VE Liaison	**Pete Senesi**	**KD2BMX**
Education	**Gordon Beattie**	**W2TTT**
Education	**Randy Smith**	**WU2S**
Education	**John L. Howard**	**K2JLH**
Education	**Fred Wawra**	**W2ABE**
History	**Fred Belghaus**	**W2AAB**
Health and Welfare	**Judith Shaw**	**KC2LTM**
Photographer	**Don Cassarini**	**N2PRT**
W2NPT Trustee	**Paul Cornett**	**W2IP**
Technical	**Paul Cornett**	**W2IP**
Technical	**Randy Smith**	**WU2S**
Technical	**Fred Wawra**	**W2ABE**
RACES Director	**Dave Gotlib**	**KD2MOB**
RACES Liaison	**Steve Wraga**	**WA2BYX**
Newsletter Editor	**Ed Efchak**	**WX2R**
FL Town Liaison	**Gene Ottenheimer**	**WO2W**
Net Scheduler	**Brian Cirulnick**	**KD2KLN**
Quartermaster	**Brian Cirulnick**	**KD2KLN**

Fair Lawn RACES/ARES Corner

With hurricane season upon us and Fall around the corner, the FL-ARES members are preparing for emergency communications when necessary. Of course, this takes training and experience from our membership which currently numbers more than a dozen. We are fortunate to make Fair Lawn and the surrounding communities our home. With our leadership and support from the FLARC we can grow and be of assistance in many community events.

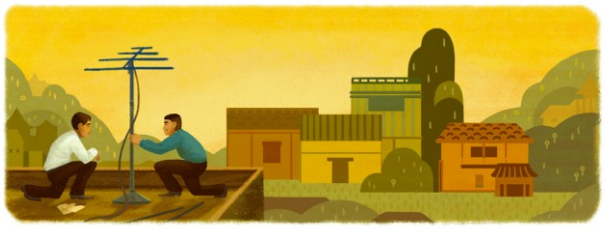
Our weekly KB2FLA nets have become more than just communication nets. One Wednesday per month (usually the 3rd Wednesday) Randy WU2S hosts a video net demonstration which covers various types of communication operations. Randy WU2S is an educator and has a wealth of knowledge we can all learn from.

On August 7th, Brian KD2KLN has provided a lesson on the ARRL Radiogram. The Radiogram is an essential part of clear communication from the sender to the destination. Brian discussed the preamble, pro-words such as "figure, initial or mixed group" and we copied Brian's Radiogram as it was presented. The following week (August 14th), I took a shot at creating a Radiogram and had a critique session afterwards. I made one or two mistakes such as using the term "combination" instead of "mixed group" so combination was thought to be an actual word in the Radiogram. We all know that practice will only help you improve. Thank you Brian KD2KLN for the Radiogram lesson.

Continued on page 31.

MASTER EVENT CALENDAR

September 14, 2019	Fall Portable Day with BARA at Memorial Park
September 20, 2019	Tim Duffy K3LR "An Inside Look At A Superstation" (Senior Center)
September 21, 2019	NJ QSO Party
October 18, 2019	Larry Makoski W2LJ "You, QRP and the Great Outdoors"
October 19, 2019	Visit to iHeart Radio
October 20, 2019	Fair Lawn Street Fair (River Road)
November 15, 2019	George Sabbi KB2GJG "SKYWARN For Today"
November 29, 2019	FLARC AUCTION
December 6, 2019	FLARC Annual Meeting and Holiday Party
December 13, 2019	Ria Jairam N2RJ "An Update On The ARRL Hudson Division"**
January 17, 2020	Florencia Pierri KD2PHZ "The First Mass Audience Radio Broadcast"
January 25-26, 2020	Winter Field Day (TBD)
February 21, 2020	Ed Efchak WX2R "The 2020 FLARC Member Survey"
March 19, 2020	Howard Michel WB2ITX ARRL CEO "The ARRL Today"
April 17, 2020	Rich Moseson W2VU "75 Years of CQ Magazine"
	** 2nd Friday of month



Hidetsugu Yagi's 130th Birthday Google Doodle

Follow FLARC ON THE WEB

Facebook: http://facebook.FairLawnARC.org

Twitter: @FairLawnARC

Blog: http://blog.FairLawnARC.org

Youtube: http://youtube.FairLawnARC.org

Website: http://FairLawnARC.org

FLARC VEC Exams

Our next test sessions are scheduled for **Saturday, September 14th** beginning at 09:00 at the Community Center. No advanced registration is required but always appreciated. The fee is $15.00 (cash or check).

Please bring positive identification (license, passport, etc.), your original license and a copy, original CSCE and a copy (if credit is needed).

The full exam schedule is on the club calendar at the FairLawnARC.org website. For further information contact VE-Liason@FairLawnARC.org.

Please refer also to the "License Exams" link on the main website--

http://testing.FairLawnARC.org

We appreciate your support of the Fair Lawn Amateur Radio Club!

This is your Club! Be part of it!

FLARC Does Boxborough… Are You?

If you're headed for Boxborough in early September know that at least Bob N2SU and Ed WX2R are headed up. If you're going, maybe a FLARC breakfast is in order.

The best club around… yes?

Member Profile

What should be the club's priorities in the next year?

Keep growing and being there in time of need.

What else can you tell the club about yourself and/or ham radio?

I never did well taking tests and I just kept working at it – a thanks to all the members telling me not to give up.

What other ham related clubs or organizations do you belong to?

SKYWARN -- and when I can I will be taking a certification course soon.

Chris W2TU

Please Note: Operating at W2NPT

Starting in January 2019 club trustees have sign-in sheets for all operating positions. There is a clipboard at Operating Position #1, #2 (digital) and #4 with a form on which to sign up for half-hour time slots. No longer first come-first served, in fairness to all who want to use our club equipment and the new antennas. More details to follow.

Get Direct With FLARC!

Here is a direct link to specific club info: just a click away!

http://apparel.FairLawnARC.org
http://auction.FairLawnARC.org
http://blog.FairLawnARC.org
http://calendar.FairLawnARC.org
http://events.FairLawnARC.org
http://exams.FairLawnARC.org
http://facebook.FairLawnARC.org
http://testing.FairLawnARC.org
http://news.FairLawnARC.org
http://swap.FairLawnARC.org
http://tech.FairLawnARC.org
http://youtube.FairLawnARC.org

NEW !

https://groups.io/g/FairLawnARC

August 2019 Blog Traffic

Ups and downs month over month again for August. A mixed year as posts were down as well this month.

	August 2019	August 2018	Change
Views	451	872	-48%
Visitors	233	456	-48%
Posts	4	11	-64%

There is new content nearly every day so it's really worth the look to both FairLawnARC.org and the blog.

http://blog.FairLawnARC.org

News and Notes

Due to a scheduling conflict, ARRL CEO Howard Michel WB2ITX has asked to move his appearance at FLARC from October to March 19, 2020. We're pleased to keep him as a part of our program series.

Stay tuned for a possible additional club opening night (Tuesday) and a possible morning opening during VE Saturdays starting in November as a pilot project. Club emails will announce any/all details.

Portable Day has been confirmed for Saturday, September 14th with BARA at Memorial Park in Fair Lawn. BARA brings the food so come hungry! It's always a great event. A week later, head over to the clubhouse for the NJ QSO Party until the facility closes around 9PM. A fun day of ham radio. (September 21st)

The club's place has been confirmed for the October 20th River Road Street Fair. We can always use volunteers and radio contacts. See Ed WX2R for details.

Don't forget the BARA hamfest is Saturday October 12th from 0800-1200 at Westwood Jr/Sr High School, 701 Ridgewood Road, Township of Washington, NJ 07676.

Brrrr… save the date. January 25-26 is Winter Field Day. Can you believe it??!!

In A Nutshell

Summer is almost over calendar wise, but there is still plenty of good weather ahead for work on your antenna maintenance. The BIG thing is safety!

As for events, there is always something happening at the club besides now being open on many Thursdays and always Fridays from 6-9.

Ham radio is a hobby so have fun with it.

73, from Fred W2ABE.

Club Apparel -- Get Them While They're RED!

Club apparel is always in vogue. Red is always "in" and your club friends all have them... you *want* a shirt or jacket for the next FLARC event!

Don't forget.... they're easy to order.
Go to www.hamthreads.com
or visit http://apparel.FairLawnARC.org

Check out the item selection that is posted on the FLARC website (with pictures and prices). Order the shirts or other items you want with either the regular FLARC logo or the still-cool 60th anniversary logo. Note: **RED** is the primary and preferred club standard shirt color.

A sea of Red at the Kid's Day event in Elizabeth. What a club!

2019 FLARC Speaker Series Locations:

SPEAKERS WHO ARE FLARC MEMBERS:
FLARC CLUBHOUSE

SPEAKERS WHO ARE INVITED GUESTS:
FAIR LAWN SENIOR CENTER

Last Call For The FLARC 2019 Equipment Donation Fund

If you have thought about giving to the 2019 fund, the time to do it is now. We're grateful to all who have voluntarily contributed and the new radios and antennas are a testimonial to your continued support for FLARC.

To date 48 members and non members have donated a total of $4,396.00 for an average gift of $91.58. It's amazing!

It's still not too late to make a 2019 contribution, so if you feel the willingness to help the club, please do so NOW. Thank you!!

BEQUEATHS AND DONATIONS

Planned gifts usually imply the family donation of amateur equipment to the club when someone has become a Silent Key. But it can be more. Club members might consider making a gift through a will or trust; gifts that help provide lifetime income to the club. Consult with your lawyer, estate planner or tax advisor if you feel such as gift is worthy.

About The Club

The Resonator is published monthly and is the official (and only) newsletter of The Fair Lawn Amateur Radio Club. FLARC was established in 1956 and has met continuously since inception. **The club is sponsored by the Borough of Fair Lawn.** The club meets every Friday at 6PM at the club station in The Fair Lawn Community Center, 10-10 20th Street, Fair Lawn, NJ. Business meetings are the first Friday of the month at 7:30 PM**.**

Visitors ARE ALWAYS welcome at our meetings.

FLARC operates the W2NPT repeater (145.470- PL **167.9**) located high atop the Community Center. The analog repeater is open to all amateurs for use without restrictions.

The club has over one hundred paid members.
Dues are currently $25 per year/$20 for new members.

For more information, please see our website, at
http://membership.FairLawnARC.org

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Upcoming Contests

Always remembering that we are "casual" contesters, the club participates in two upcoming events and invites operators both skilled and those desiring to be.

- **HPM150** Hiram Percy Maxim 150th Birthday anniversary "operating event" -- 8pm Friday 8/30 thru 8pm Sunday 9/8 so it's not a big rush! All modes and all bands. We'll combine member scores for a cumulative club score.

- **September 21**: New Jersey QSO Party -- voice and CW 1600Z, Sep 21 Noon until 11:59 PM -- a chance to meet a lot of old friends who want to stay in touch with NJ. **Note: One Day Only in 2019!**

Last year FLARC won the NNJ section of the NJ QSO party and finished second overall -- not bad where the goal is to have fun and improve operating skills.

So get involved!!

Interested in Chasing DX?

A casual group of FLARCers including Van W2DLT, John KD2NRS, Brad KM2C, Karl W2KBF, Nomar NP4H, Steve WI2W, Jim W2JC, Larry WA2ALY and Fred W2AAB have formed an email group to keep each other in touch in (real) time of when the rare or interesting ones show up to chase.
Interested? See or contact Van W2DLT.
Here is a very useful list of upcoming DXpeditions -- https://www.ng3k.com/Misc/adxo.html

FAIR LAWN'S COMMUNICATIONS CENTER!

With New Antennas On The Roof!

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

Month	Name	Call Sign
January 2016	**Pete**	**KB2BMX**
February	**Marco**	**KC2ZMA**
March	**Ron**	**KC2TBD**
April	**Kai**	**K2TRW**
May	**Larry**	**WA2ALY**
June	**Dave**	**N8MAR**
July	**Steve**	**WI2W**
August	**Thom**	**W2NZ**
September	**Brian**	**KD2KLN**
October	**Brad**	**KM2C**
November	**Al**	**WA2OWL**
December	**George**	**W3EH**
January 2017	**Fred**	**W2ABE**
February	**Dave**	**KD2MOB**
March	**Randy**	**WU2S**
April	**Lee**	**KD2DRS**
May	**Gene**	**WO2W**
June	**Carol**	**KD2NMV**
July	**Kevin**	**KC2KCC**
August	**Robert**	**KD2NOG**
September	**Robert**	**KD2BKD**
October	**John**	**KD2NRS**
November	**Fred**	**W2AAB**
December	**Margaret**	**W2GB**
January 2018	**Brian**	**KD2OAZ**
February	**Bennett**	**KO2OK**
March	**Van**	**W2DLT**
April	**Aly**	**ALØY**
May	**Bruce**	**NJ2BK**
June	**Dave**	**N2AAM**
July	**Karl and Susan**	**W2KBF and W6SKT**
August	**Steve**	**KA2YRA**
September	**Paul**	**K2PJC**
October	**Skip**	**KD2BRV**
November	**Ed**	**WX2R**
December	**Tom**	**N2AAX**

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.

http://newsletters.fairlawnarc.org

Theoretics Demystified

"Watson, can you hear me?" Those famous words heralded a new era of the reproduction of human speech and natural sounds in general. The subject is sound reproduction by the use of microphones and various reproducers. The invention made radio, telephones, pa systems and advanced recording of voice and music possible.

The first microphones used carbon granules held together in a capsule made of metal and a diaphragm also made of metal through which a current was passed, making it a sound activated variable resistor. Early carbon microphones were sometimes water cooled for use in spark gap transmitters. The simple original circuit was thus: a battery, a reproducer, and the sound variable resistor which we will now call a carbon microphone are all connected in a loop. A sound or tap on the diaphragm of the microphone caused the current to vary according to the sound and that resultant modulation produced a reasonable copy of the sound in the reproducer. The reproducer was a coil of wire wound on an iron pole piece and another pole piece which was connected to the diaphragm, and as the varying voltage was induced in the coil, the sound was generated as a copy of what was input at the microphone end. That was basically the first telephone! You can take a carbon microphone (known as a transmitter in telephone parlance) and wire it to a reproducer (receiver) and connect them, say to a 9 volt battery in a loop and talk to yourself! Bell made many improvements to the transmitters and receivers a time went on. Carbon elements were improved to help prevent the granules from sticking together from excess current and receivers were improved by using soft iron and bias magnets to improve sensitivity. It goes without saying that these two inventions were the birth of the hard wire telephone industry.

The next two types of microphones can act as reproducers also, they are the dynamic microphone, which is made by using a fine wire coil attached to a diaphragm and then the coil is suspended in a magnetic field so that as it moves, a current (audio signal) is generated in the coil, producing an audio signal. By reversing the process and putting an audio signal into the coil assembly it will produce sound. A larger version is what we know as a loudspeaker, which can also act as a dynamic microphone. There are several applications where a speaker is also used as a microphone as in an intercom system. The impedance, that is the ac resistance at a given frequency, of dynamic microphones is quite low, but an audio transformer can be used to gain a higher impedance if needed. Another variant of dynamic microphone is the ribbon microphone where a special very delicate steel ribbon is suspended between two strong magnets and thus produces an audio output in response to sounds.

Continued on last page

2019 *Near and Far Net* Check-In's

Now in its third year, the FLARC *Near and Far* net is chugging along each week. Here is list of our check-ins beginning on New Year's Night in no particular order. Mondays at 8PM on the repeater.

Name	Call
Dave	N2AAM
Gene	WO2W
Van	W2DLT
Karl	W2KBF
Stan	KC2K
Ed	WX2R
Steve	WA2BYX
Brian	KD2KLN
Ken	W2KAC
John	K2BIX
Fred	W2AAB
Bob	KD2BKD
Randy	WU2S
Dave	KD2JIP
Larry	KD2QFI
Steve	WI2W
Brad	KM2C
Thom	WN2Z
Ron	KC2TBD
Dave	KD2MOB
Bob	KM4CPU
Bob	KE0OPX
Phil	KA2SEY
Dave	NK2Q
Noel	N2OEL
Ray	KD2RBW
Larry	KD2QFI
Matt	K2FTP
Paul	K2PJC
Tom	WB2KWD
Brian	KD2OAZ
Bob	N2HIP
Al	KC2SAV
Chris	W2TU
Anton	K2PLB
Ray	KD2RIK
Watson	K3WAT
Kevin	KD2RJM
Roger	K2RRB
Jonathan	KC2RRK
Glenn	KB2MDR

2019 Member Profiles

With Volume 4, we begin an new list of featured members in a monthly profile. See past profiles elsewhere in *The Resonator* to check back in the archives to see each featured member's background.

Month	Name	Call Sign
January 2019	Dave	KD2JIP
February	Jim	K2ZO
March	Zach	KC2RSS
April	Bob	N2SU
May	Stan	KC2K
June	Steve	WA2BYX
July	Roger	K2RRB
August	Judith	KC2LTM
September	Chris	W2TU

2019 *Near and Far Net* Check-Ins (Continued)

Name	Call
Andrew	KC2G
Kenneth	KC2OKR
Kenny	W2KAC
Fred	W2ABE
Judith	KC2LTM
Tyrell	KB2TJK
Glenn	KB2MDR
Dave	N2DEA
Skip	KD2BRV

What Is It? Where Is It?

Nondescript and kept behind a barbed wire fence, we get involved with this array of equipment every day. Answer on page 27.

Past FLARC Member Profiles

Here is a list of past member features and we welcome your recommendations for new profiles -- including your own.

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January 2016	Pete	KB2BMX
February	Marco	KC2ZMA
March	Ron	KC2TBD
April	Kai	K2TRW
May	Larry	WA2ALY
June	Dave	N8MAR
July	Steve	WI2W
August	Thom	W2NZ
September	Brian	KD2KLN
October	Brad	KM2C
November	Al	WA2OWL
December	George	W3EH
January 2017	Fred	W2ABE
February	Dave	KD2MOB
March	Randy	WU2S
April	Lee	KD2DRS
May	Gene	WO2W
June	Carol	KD2NMV
July	Kevin	KC2KCC
August	Robert	KD2NOG
September	Robert	KD2BKD
October	John	KD2NRS
November	Fred	W2AAB
December	Margaret	W2GB
January 2018	Brian	KD2OAZ
February	Bennett	KO2OK
March	Van	W2DLT
April	Aly	ALØY
May	Bruce	NJ2BK
June	Dave	N2AAM
July	Karl and Susan	W2KBF and W2SKT
August	Steve	KA2YRA
September	Paul	K2PJC
October	Skip	KD2BRV
November	Ed	WX2R
December	Tom	N2AAX

By the way, Randy (WU2S) has compiled a binder of all back issues of *The Resonator* and it's located in the club office. Thanks Randy!!!

Back issues are also available on our website.
http://newsletters.FairLawnARC.org

September 2019 Near and Far Net Controls

Here is the roster for net controls for the upcoming month as reported by Brian KD2KLN:

Date	Net Control
Sept. 2	Nomar NP4H
Sept. 9	Brian KD2KLN
Sept. 16	Dave KD2MOB
Sept. 23	Van W2DLT
Sept. 30	TBD—You??

The Near and Far Net now averages close to 20 check-ins on an average week! Cool beans.

But we need more volunteers to be net controls -- if everyone takes their turn it's less burden on the others. And it's easy. Volunteer --- don't wait to be asked (unless you really want to be flattered).

You Never Know What You Will Find!

A glimpse of the past ...

What a surprise it was when I received an email from Fred W2AAB with a link to eBay and took a look at it.

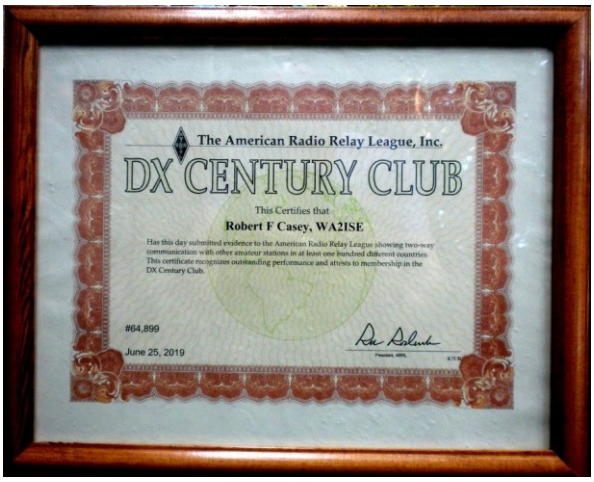
We all know that Fred is a collector of historic QSLs, so it's no surprise that he would be browsing eBay looking for interesting stuff. When I looked at the link, I found a QSL card from W2BVE from 1957. Hey, that was MY call back then! Van W2DLT and I got our novice licenses issued on the very same day! I opted to get my initials in a 2-letter W call when they first became available to Extra class hams -- Van opted to keep his original call until now. Anyway ...

How could I resist buying back my own QSL from 62 years ago?!

DE Jim W2JC

NEAT OPERATING AWARDS TO WA2ISE

Bob WA2ISE has recently achieved some well earned operating awards. Recently he attained DX Century Club and earlier in the year WAS. Congrats!!



News and Notes

Good FLARC friend Dr. Frissell W2NAF was featured last month on the QSO Today podcast. Here is the link. For those who missed it, he has left NJIT for a full time teaching position at the University of Scranton.

http://bit.ly/W2NAF-Podcast

Congratulations!

Pete (KD2BMX) reports the results of the August 10, 2019 FLARC VEC Amateur Radio Exam Sessions:

Total Number of Candidates served: 5
Congrats to all -- 5 passed!!

Name	Call	License Earned
Oakley Hall	KD2SOF	Technician
Robert Marchini	KD2SOG	Technician
Christopher Fitzgerald	KD2SOH	Technician
Jae H Lee	KD2SOI	Technician
Daewoo Kim	KD2SOJ	Technician

Want To Help Set The Direction Of FLARC for 2020?

Now is the time to begin thinking about what 2020 will mean for the club. The annual member survey is the starting point for measuring ideas and interests and now is the time to get your input into the member agenda.

If you have questions that you want to ask about the direction of the club, now is the time to do it. Send any topics or questions you want see answered to Ed WX2R at wx2r@arrl.net and he'll work them into the 2020 member survey which will arrive in your mailbox on New Year's Day.

This year's input included special events, the voluntary donation fund, and opening the club beyond Friday nights. Great feedback from NJ'S fastest growing club.

2020 will be here before you know it.

2019 Vintage Night

Well, Vintage Night is now history. We ran a Heathkit DX-60 with HG-10 VFO, with a Drake 2B receiver. The antenna was an OCFD about 25 feet high. The DX-60 ran about 35 watts output. We set-up at the Fair Lawn (NJ) Senior Center, and the antenna was raised up on several sections of fiberglass mast, then sloped downwards slightly to a couple of trees alongside the building. The crowd topped 40 (43 actually) and made for a very, very fun evening. A big TNX to Fred W2AAB for solid operating under pressure, Steve WA2BYX for assisting in managing the gear, Gene WO2W for handling the 2 meter operation with the Heath Two'er and Jim K2ZO for being the emcee and providing a wonderful background to the evening. The '60s brought back to life again.

The Drake 2B Receiver

The Heathkit DX 60 Transmitter

Steve WI2W gets the gear in tune ahead of Vintage Night

The Heath Twoer 2 meter transceiver

2019 Vintage Night Contacts

Vintage Night QSOs were with:

2339 UTC 7.035 or so...Called by W9WR (John in Floyd's Knobs, IN), RST 599, who disappeared after the first transmission.

2352 UTC 7.042 or so...QSO with K3KYR (Jeff in Bombay, NY), RST 579/579 solid QSO.

0001 UTC 7.030 or so, QSO with W9IK (Steve in Danville, IL), RST 589/589, solid QSO.

0021 UTC 3.885 (xtal freq) QSO with W2KBF (Karl in Swedesboro, NJ) on AM, RS 59/59, solid QSO.

0046 UTC 3.530 or so. QSO with K1CL (Chuck in Chelmsford, MA), RST 599/599. Solid QSO.

2019 Vintage Night

At 60 years +, the Heathkit transmitter did its job with 43 spots recorded on the Reverse Beacon Network including England, Germany, Switzerland (2), and Hungary. Here they are:

KM3T-2	W2NPT	3532 CW CQ [LoTW]	25 dB	25 wpm 0053z 17 Aug
W1NT	W2NPT	3532 CW CQ [LoTW]	38 dB	24 wpm 0053z 17 Aug
NN3RP	W2NPT	3532 CW CQ [LoTW]	9 dB	25 wpm 0053z 17 Aug
W1NT-6	W2NPT	3531.9 CW CQ [LoTW]	41 dB	25 wpm 0053z 17 Aug
KM3T	W2NPT	3532 CW CQ [LoTW]	26 dB	25 wpm 0053z 17 Aug
KC4YVA	W2NPT	3532 CW CQ [LoTW]	17 dB	25 wpm 0053z 17 Aug
WZ7I-1	W2NPT	3532 CW CQ [LoTW]	38 dB	25 wpm 0053z 17 Aug
W3UA	W2NPT	3532 CW CQ [LoTW]	29 dB	24 wpm 0053z 17 Aug
W1NT-2	W2NPT	3532 CW CQ [LoTW]	25 dB	25 wpm 0053z 17 Aug
KM3T-1	W2NPT	3532 CW CQ [LoTW]	29 dB	25 wpm 0051z 17 Aug
W4KAZ	W2NPT	3548.8 CW CQ [LoTW]	19 dB	22 wpm 0041z 17 Aug
W2AXR	W2NPT	3548.8 CW CQ [LoTW]	17 dB	22 wpm 0041z 17 Aug
W1NT-2	W2NPT	3548.8 CW CQ [LoTW]	19 dB	22 wpm 0040z 17 Aug
KM3T	W2NPT	3548.8 CW CQ [LoTW]	23 dB	22 wpm 0040z 17 Aug
W8WTS	W2NPT	3548.8 CW CQ [LoTW]	23 dB	22 wpm 0040z 17 Aug
W3UA	W2NPT	3548.8 CW CQ [LoTW]	19 dB	22 wpm 0040z 17 Aug
KM3T-2	W2NPT	3548.8 CW CQ [LoTW]	21 dB	22 wpm 0040z 17 Aug
W1NT	W2NPT	3548.8 CW CQ [LoTW]	28 dB	22 wpm 0040z 17 Aug
KQ8M	W2NPT	7033.4 CW CQ [LoTW]	8 dB	22 wpm 0001z 17 Aug
N9YKE	W2NPT	7033.5 CW CQ [LoTW]	7 dB	22 wpm 0001z 17 Aug
G0LUJ	W2NPT	7033.5 CW CQ [LoTW]	4 dB	23 wpm 0001z 17 Aug
K2DB	W2NPT	7033.5 CW CQ [LoTW]	19 dB	22 wpm 0001z 17 Aug
W8WTS	W2NPT	7033.4 CW CQ [LoTW]	16 dB	22 wpm 0001z 17 Aug
K3PA	W2NPT	7033.5 CW CQ [LoTW]	12 dB	22 wpm 0001z 17 Aug
WE9V	W2NPT	7033.4 CW CQ [LoTW]	21 dB	22 wpm 0001z 17 Aug
W4AX	W2NPT	7033.4 CW CQ [LoTW]	6 dB	22 wpm 0001z 17 Aug
G0LUJ	W2NPT	7037.2 CW CQ [LoTW]	3 dB	22 wpm 2345z 16 Aug
W2AXR	W2NPT	7037.1 CW CQ [LoTW]	13 dB	22 wpm 2345z 16 Aug
W4KAZ	W2NPT	7037.1 CW CQ [LoTW]	14 dB	22 wpm 2345z 16 Aug
W3UA	W2NPT	7037.2 CW CQ [LoTW]	12 dB	22 wpm 2345z 16 Aug

2019 W2NPT Vintage Night Spots Via Reverse Beacon Network

The Vintage Night Team: What A Group!

- **Fred W2AAB**
- **Steve WI2W**
- **Gene WO2W**
- **Steve WA2BYX**
- **Steve KA2YRA**
- **Bennett KO2OK**
- **Thom W2NZ**
- **Paul WA2IIE**
- **Jim K2ZO**
- **Brian KD2KLN**
- **Don W2JEK**
- **Ed WX2R**

2019 Vintage Night

WA9VEE-WI	W2NPT	7037.2 CW CQ [LoTW]	10 dB	22 wpm 2343z 16 Aug
HB9DCO	W2NPT	7037.2 CW CQ [LoTW]	7 dB	22 wpm 2343z 16 Aug
HB9DQM	W2NPT	7037.3 CW CQ [LoTW]	10 dB	22 wpm 2343z 16 Aug
DL9GTB	W2NPT	7037.3 CW CQ [LoTW]	10 dB	22 wpm 2343z 16 Aug
KQ8M	W2NPT	7037.3 CW CQ [LoTW]	3 dB	24 wpm 2339z 16 Aug
K2DB	W2NPT	7037.4 CW CQ [LoTW]	21 dB	24 wpm 2339z 16 Aug
HA1VHF	W2NPT	7037.3 CW CQ [LoTW]	6 dB	24 wpm 2339z 16 Aug
K3PA	W2NPT	7037.4 CW CQ [LoTW]	7 dB	24 wpm 2339z 16 Aug
WE9V	W2NPT	7037.3 CW CQ [LoTW]	24 dB	24 wpm 2339z 16 Aug

Fred W2AAB at the microphone!

Jim K2ZO acts as emcee to open the evening

Steve KA2YRA talks antennas at the rear of the Senior Center

Gene WO2W makes a point about the Heath Twoer

A special thanks to all who helped make Vintage Night a marvelous success! The committee is noted elsewhere and a special thanks to KD2MDR, NP4H, KD2KLN, W2JC, KA2YRA and WX2R for the pix. And W2NZ for video and live stream!

Tech Talk

Let Us All Join Together

Over three years ago in my July 2016 Tech Talk column I introduced to you the Wago Lever Nuts wire connectors. These are great for either temporary or permanent wire connections in dry, weatherproof locations. They are made and rated for permanent connections of typical mains voltages and currents. They accommodate wire gauges from #28 to #12 in the same connector. They take up a bit more room than a wire nut, but they hold the wires more securely. They are available on Amazon and from a variety of other vendors.

There are now two version of the Wago connectors. Make sure that you look for the Wago brand and not some imitation from other manufacturers. The Wago connectors are UL listed and will meet the electrical code for house wiring.

Good, quick connections where moisture or weather is an issue can be made with a product called Solder Seals.

Sean Ragan on the Cool Tools YouTube channel notes:

> "These are single-use connectors for joining two wires together at their ends. | Each one has three essential parts:
>
> > First, there's the outer wrapper, which is a piece of clear heat-shrink tubing that insulates the finished splice electrically
> >
> > Second, about a quarter of the way from each end is a dot of hot-melt glue that seals the joint against water and other unwanted liquids and gases.
> >
> > Finally, in the middle, there's a little donut of low-melting-point solder with a flux additive that helps it bond to the conductors.
>
> All three parts are heat-activated at a temperature of about 285 degrees F, so you don't need any unusual tools to install them. Here, for example, I'm just using a butane lighter."

Another advantage of these Solder Seal connectors is that they work equally well with solid or stranded wire or a combination of both. It would be a good idea to keep a few of these, and a disposable butane lighter, in your emergency repair go-kit.

A final old-fashioned idea which should be remembered is the spring terminal connector. For those of you who experiment a lot and use the solderless breadboards, you have probably run into situations where you realize that the battery holder or small DC motor you want to connect to your breadboard circuit uses stranded wire and won't insert into the breadboard.

Here is where and old solution comes to the rescue. Radio Shack use to sell a wooden board with spring terminals. The advantage is that these terminals accommodate both solid and stranded wire in a variety of gauges.

Tech Talk (Continued)

Now that Radio Shack is gone, a new source for these terminals has appeared. You can buy a pack of 25 terminals from the Maker Trading Posts for $4.99

Now that we have the means, let us all join (those wires) together.

73,

Randy WU2S

References

1. Wago connectors on Amazon: https://www.amazon.com/s?k=wago+level+nuts&ref=nb_sb_noss_2
2. Solder Seal on YouTube - Cool Tools Channel: https://www.youtube.com/watch?time_continue=231&v=pGKsXSiFww4
3. Cool Tools blog by Chuck Davey: https://kk.org/cooltools/solder-seal-wire-connector/
4. Spring terminals on YouTube - Cool Tools Channel: https://www.youtube.com/watch?v=nWYQxd4Y5d8
5. Maker Trading Post: Pack of 25 spring terminals https://makertradingpost.com/collections/components/products/spring-terminals-pack-of-25

Figure 4 Wago Lever Nut connector

Figure 3 Wago Lever Nut newer version

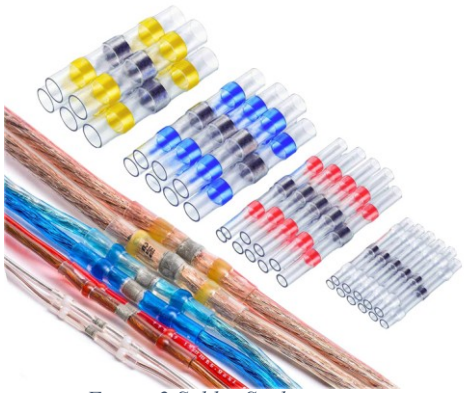


Figure 2 Solder Seal assortment

Figure 1 Radio Shack Science Fair style spring terminals

Around The Shack
By Hal Kennedy N4GG

Rectification Noise From the Antenna Field

Last month we talked about *conducted* emissions noise that can substantially raise the noise floor of our receivers. This month we will look at a *radiated* noise source that many of us are unaware of, but is lurking somewhere out near our antennas.

While transmitting, our antennas induce current in nearby metal objects. This is particularly true of objects which are resonant or near resonant at the transmit frequency or its odd harmonics. Examples include other antennas, gutters, flag poles, the air ducts in our attic, etc. What happens to the RF current flowing in nearby resonant structures?

As always, current at RF frequencies is either radiated or becomes heat. The radiation from unwanted current in unknown objects can spoil the pattern of an antenna. The radiation from the transmit antenna and the "parasitic" object(s) add and subtract from each other in unplanned ways. Often, this can't be modeled.

This brings us to this month's subject – rectification in the antenna field. Any poor connection within our antennas or in the near-field of our antennas can become a rectifier. Rectification is by definition non-linear and produces RF at multiple frequencies or across a broad range of frequencies– all of which get radiated by the structure they are happening in. That's a lot of technical jargon – an example or two may help.

Think of a rain gutter with a splice. The splice may be a good connection for water, but a poor connection for RF. Current in the gutter gets rectified at the splice and that may produce both broad band noise and RF at odd harmonics. These signals get generated in the gutter *and are radiated by the gutter*.

There is a famous and once widely used tri-band Yagi first produced in the early 1990s; one with lots of linear loading tubes and interconnections. I counted the connection once – over 200. *Any* of those connections that comes loose or corrodes can form a spot for rectification and generate unwanted RF radiation on various frequencies. This family of antennas (there are two tri-banders and a 3 element 40M Yagi) is famous for this problem.

So, when or where is this a problem? For one, at any station with two or more radios operating at the same time. At N4GG I contest with two radios. Anything metallic in the near-field of a transmitting antenna can rectify and be heard as noise or birdies in the second receiver. This has happened and I have had to hunt for rectifying connections "out there somewhere."

You may not contest with two radios, but what about Field Day? This year (2019) a local club experienced noise on one band that might have been due to rectification within one of the transmitting antennas or a nearby structure while transmitting on other bands. Or maybe not! It's hard to know. There are several possible culprits that can cause unwanted and unplanned noise and signals in a multi-transmitter environment. It's important to make all antenna connections as sound as possible to reduce the chances of rectification becoming a problem. Antenna connections at Field Day are often done "on the fly," and that can lead to trouble.

Around The Shack (Continued)

An anecdote: I was at a famous Caribbean contest station some years ago and we were contesting as a "multi-multi." Multi-multi is: multiple transmitters, multiple operators. While transmitting on 80 meters we had lots of odd noises in all the other receivers. New noises – ones never heard at that location before. I walked outside the shack and confirmed a hunch. A tower-supported 80 meter inverted vee had been retired from service but was still attached to the tower at the top, with the legs of the antenna laying against the tower their entire length. The legs of the inverted vee had been disconnected from their supports and simply allowed to swing into the tower and rest as they may – making lots of unplanned connections – ones that rectified induced current and changed as the wind blew. The fix was simple. I pulled each end away from the tower about a foot and the noises disappeared.

Rectification near or within your transmit antennas can also generate radiation at frequencies outside the ham bands. FM radio, pubic service scanners and your VHF handheld are all susceptible to rectification-generated noise while transmitting on HF. In that sense, nearly all of us are operating in a multi-receiver environment even if we only have one transmitter.

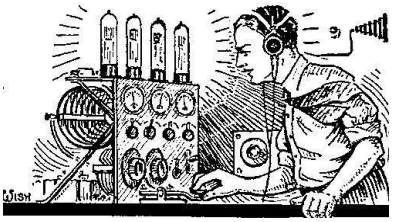
What's rectifying in your backyard?

73,
Hal N4GG

As an aside, large AM broadcast stations (as high as 50 KW) often induce high current into objects near the transmit antenna(s). Particularly susceptible are light poles along nearby highways. Tall poles are near-resonant structures and have been measured to have amps of RF current flowing in them. The poles radiate – they have become elements in a parasitic array. Radiation from the light poles alters the radiated antenna pattern of the station; the one permitted on the station's FCC license. These are hard problems to fix and keep RF engineers employed. Also, as construction has encroached on areas where AM stations have their antennas (wetlands for example) the construction and development may go on for years resulting in an antenna pattern that keeps changing. Making things worse, the unplanned parasitic radiators can be full of corrosion which causes rectification which causes interference both within the AM band but also over a wide range of frequencies. AM transmitters are "clean" for the most part, but they can create a very noisy local environment due to induced current in nearby structures. The 160 meter ham band is particularly susceptible to this noise source.

A further aside: When WLW (700 KHz) ran 500KW for some years, it was said that the current induced in the tin roofs of nearby buildings was so high it would melt the nails holding the roof down and roofs were known to slide off! While I doubt it, it makes for great folklore. People also swore they could hear WLW in the fillings in their teeth. I guess the metal filling-to-body junction could rectify - who knows? It's probably good the FCC forced WLW to cut "all the way back" to 50 KW!

N4GG



The Way We Were --

By Fred Belghaus W2AAB

The East Coast Chronicles – Part 3
Conclusion

Synopsis: *Last month we described some of the Repeater and Frequency Wars that raged in the early days of channelized FM in the New York metropolitan area, and some of the technological changes that forever changed the nature of 2 meter FM operating. We also described some of the more colorful characters that once inhabited the Paramus repeater, nearly all of whom have since disappeared from the airwaves. This month, we continue our description of colorful characters on other area repeaters, and conclude our brief history with recent developments.*

Apocalypse Too Soon

Perhaps the most significant change that took place during the decade of the 1970s was the transition from mainly simplex operation on 2 meters to operation predominantly through repeaters. As has been previously noted, many new repeaters sprang up, ultimately filling nearly all available frequency pairs in the 146 and 147 Megahertz range. With these frequencies so well occupied, the next solution to handle additional repeater growth was to park repeater inputs down as far as the 144 Megahertz range with outputs in the 145 Megahertz range. Added to this, was the establishment of certain frequencies in the 145 Megahertz range for satellite and space communication only.

The changes to the 2 meter band were profound. Up until the age of repeaters, 2 meters was predominantly a very friendly band, where one could enjoy a leisurely chat on AM with neighbors or the occasional "DX" contact with other states. I remember the excitement the band once held. The challenge for most of us with simple or moderate stations was in our looking forever "over the horizon," and raising stacked beams or long Yagis topside, in hopes of making a contact with New England or Southwest into Pennsylvania, Delaware, Maryland, even Virginia, if we were lucky. To the west, there was Ohio, almost beyond reach, but still possible with a good band opening, and some old fashioned luck.

Others took to the hills and mountaintops, usually while mobile, and not only to work contests, but just to expand their VHF range. There were no "Grid Squares" in those days. These would be imposed on the VHF and higher bands much later by the A.R.R.L., in imitation of the system devised for the tiny British Isles years before, in order to allow contact with more "areas" within those small isles. But prior to grids becoming the geographical divisions for VHFers in the U.S., working different states was our goal, except during contests, when our goal was working A.R.R.L. sections.

Almost everybody on the band would get active in the VHF contests, whether they were avid contesters or not. This was so because we were always looking to fill our logbooks with new stations, to snag a new state, or just to see how far our low power transmitters could reach. Others would get on and just give out points, and no one, except a few grumpy old men seemed to mind the band being full of stations. Most welcomed the increased activity.

The Way We Were

Weak signal work, once the exclusive province of CW, and later SSB, would be pushed down lower and lower in the band, finally occupying only a tiny sliver of bandwidth, for the same reason that AM was squeezed out of the 145 Megahertz range -- REPEATERS!

No longer were heard the local nets, the relaxed voices of old timers and youngsters alike "chewing the rag" sometimes for hours on end, discussing their station equipment, antennas, band conditions, and their plans for building equipment for the higher bands. No, that was all gone now, replaced by the endless chatter on repeaters, each contact necessarily short, their duration disciplined by repeater rules and regulations, many of the repeaters clannish and downright unfriendly. FM operation was certainly more "convenient," in that it required a lower skill level and less technical knowledge to operate. But something was missing. Alas, it was something BIG.

Don't it always seem to go
That you don't know what you've got
Till it's gone…
--Joni Mitchell, "Big Yellow Taxi"

In spite of the trials and tribulations during this period, most FM repeater groups managed to get along fairly well with one another in their 2 meter microcosm. Eventually, the newcomers to our FM world learned better, more courteous operating, and learned at least some basic technical knowledge, as well. But things were still not perfect in FM-land.

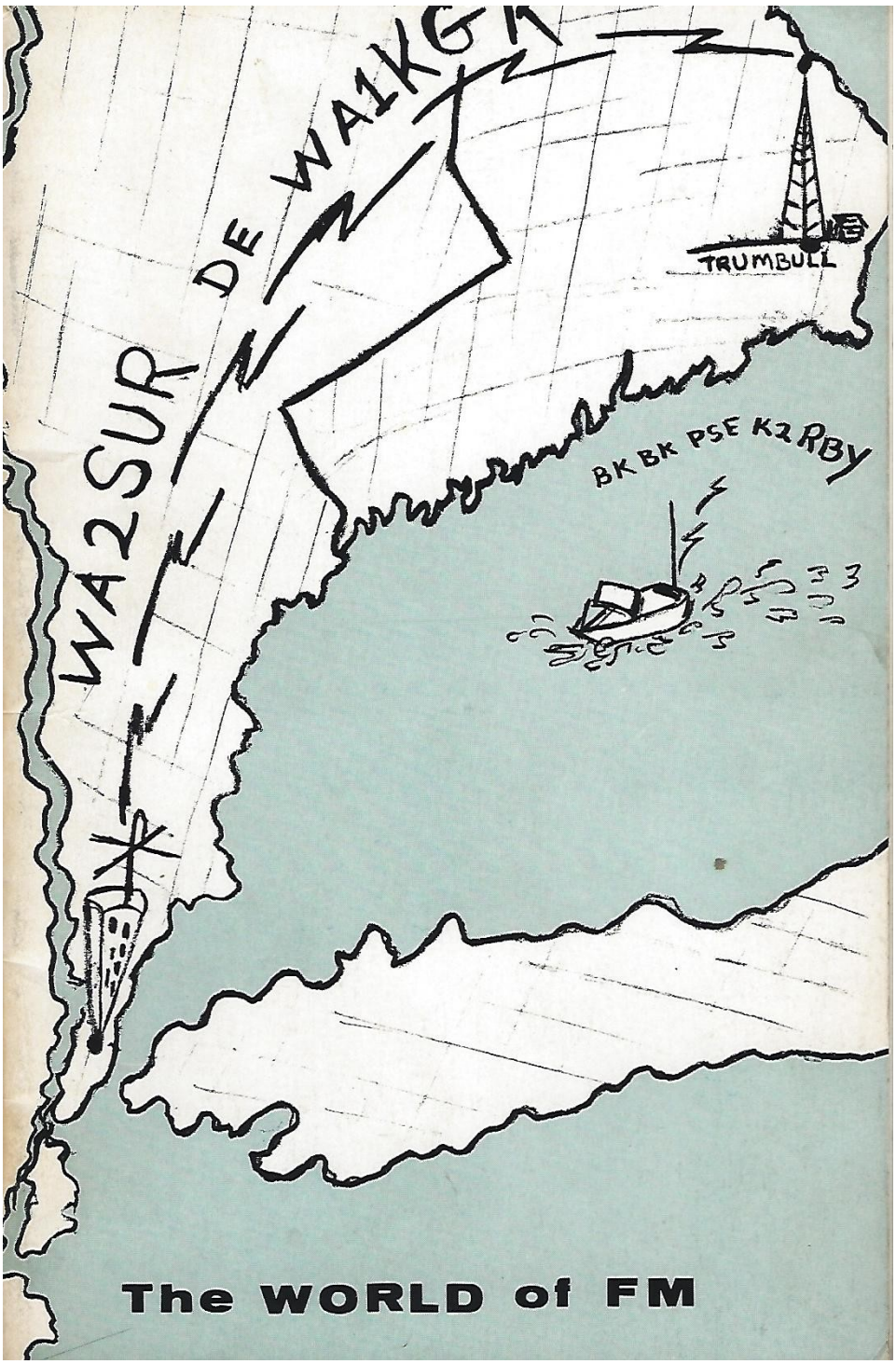
In 1971, several new repeaters were built in New York City. One of these proved to be the most popular. It operated on 146.13 in, 146.73 out. It was constructed chiefly by the Supervising Transmitter Engineer at a Spanish language UHF-TV station, installed on what was then known as the Cities Service Building in Lower Manhattan. The repeater was on the 55th floor and the antenna was on the roof, 67 stories above the street. At first, the call sign of the repeater was K1TKJ/2, the personal call of its builder, who lived in Connecticut. He applied for a "second station" call for the repeater and received a re-issued call, WA2SUR.

Technically, the repeater was among the best, and its coverage area was nothing short of legendary. It could be easily accessed from all five boroughs of New York City on an HT, and from mobiles and base stations over nearly all of Long Island, much of New Jersey, about half of lower New York State and most of Connecticut. When there was a band opening, stations from half-way into Pennsylvania, all of Delaware, Rhode Island, and Massachusetts were also heard on it. Even stations from southern New Hampshire, Vermont and Maine were heard occasionally.

With such an outstanding signal, its occupancy grew rapidly. In less than one year of its initial construction, I was told, more than 600 stations were reported to be active on it! Much of this activity was by mobile stations during commute times, but it was not unusual to hear constant chatter on the repeater for nearly 24 hours every day. It seemed like everybody with a 2 meter FM rig within 50 miles of Manhattan was active on it, at least some of the time.

The Way We Were

The repeater group even published a magazine type newsletter, professionally printed, *The World of FM.* Issue number 3, dated Fall, 1971 runs 32 pages (plus covers), and includes advertising from Barry Electronics and from a Queens-based dealer for GAM Antennas, maker of VHF-FM antenna products. The issue states that it was printed in an edition of 500 copies, twice the number of the previous issue. Here's a scan of its cover:



The newsletter lists 288 official, paid members, but there were many more stations active on it, including "transients." There is a handwritten note by me inside the newsletter, stating that I had been assigned member number 329, obtained only days after I had received the newsletter. It was a truly fabulous repeater, which provided solid communications all over the New York metropolitan area, and hours of listening entertainment for those just in the "monitoring" mode. It seemed too good to be true, and it soon was.

In any group of human beings, especially those crowded into small spaces, there is bound to be tension, friction, disagreement, envy, general tomfoolery, and even malice. The larger a group of human beings and the smaller the space into which they are squeezed, the more each of these are likely to develop.

It must be remembered that these were still the days before PL was commonly used to access repeaters, which made it easy for anyone—with good intentions or not, to key up and operate on them. The owner, George, resisted the idea of PL, and steadfastly refused to require it, considering it "un-amateur," unfriendly, and exclusive. Consequently, the "SUR" repeater attracted some of the best and worst elements in amateur radio to its frequency, and it wasn't long before some wag started referring to it by the nickname, "the sewer," a play on its call letters.

Miscreants

The troublemakers that set up shop on seven-three were of several types. One type was the "kerchunkers." These were people that keyed up the repeater, and keyed it up, and keyed it up, and keyed it up, endlessly, without identifying or making a call. Sometimes these half wits continued their adolescent playing for a long time, until one of the control operators simply shut down the repeater.

Then there were the cretins who would interrupt a QSO by breaking in and asking, "How'm I hittin' the machine?" After being told that they were full quieting, they'd disappear, only to re-appear later, breaking into another QSO and asking again.

There were the "characters," of one kind or another, the most notorious of whom came to be known as "ribbet," AKA "Crazy Horse." This creature would transmit over other stations and say, "RIBBET! RIBBET! RIBBET!" in a vain attempt to sound like a frog.

There were, of course, jammers, too. These usually just keyed up and "captured" any signal weaker, obliterating them until they let up on their microphone button. Other jammers were more inventive. Some played music through the repeater. Others recorded other people's transmissions, then played them back with the other stations' call letters re-transmitted, causing a lot of annoyance and confusion. One character would jam the repeater, and then play back a recording of another person's call, thus making it appear that the one whose call was played back was actually jamming. This naturally enraged the rightful licensees, and they called for action to catch the guilty party.

The worst of these jammers somehow managed to artificially create intermod on the repeater, which resulted in a high-pitched, raucous gurgling noise that was so irritating to the ear that listeners had no choice but to either leave the frequency or turn off their rig. Whenever this character started his intermod assault and kept at it, one of the control operators would shut down the repeater.

A certain technique was described to me as follows: Take a large number of 1N34A diodes, and to half of them, solder a piece of wire to each end, to make a half wave dipole cut for the repeater's input frequency. To the rest of the diodes, solder another half wave dipole similarly, only cut for the output frequency. Then, place both types as close to the repeater site as possible, perhaps even hide them in places right at the repeater site. The result, I was told, would be an especially nasty type of intermod, and one not easy to locate and resolve. Whether or not this was the method used by the "intermod jammer," I do not know, but whatever he did to cause the intermod, it certainly worked, all too well.

A super-secret committee was formed by the repeater hierarchy, to deal with the various jammers plaguing the SUR repeater. The best technical minds and the most sophisticated equipment were employed for this purpose, including the latest professional direction finding techniques. Ultimately, these methods were successful in nabbing the worst offenders, including the "intermod jammer."

Every transmitter has a unique "RF signature." Every received signal delivers a certain strength in microvolts at a receiver, and a direction in degrees relative to the receiver's antenna. Every crystal has a precise, discrete frequency. Any frequency drift or other unique characteristics will further identify it from others. Every microphone has unique audio characteristics, and every voice has unique characteristics, which will identify it from others. Additional characteristics such as A.C. hum or other extraneous modulation of the carrier (such as from a nearby broadcast station, etc.), will also identify it as differing from others. When each of these characteristics are observed on appropriate equipment and intelligently evaluated, every signal can be identified, even if the transmitting station does not identify with call letters.

Some jammers, operating mobile, and constantly changing location, are more difficult to locate using RDF methods only, but using the additional techniques described above, they cannot escape discovery. The "intermod jammer" was, ultimately, caught, using some of these more sophisticated techniques. He turned out to be one of the repeater's own control operators!

Though most operators on the seven-three repeater were quite ordinary human beings, some belonged to another category which I call "entertainers." These were generally benign, often comical characters that stamped their unique, personal mannerisms on their operating that made them memorable.

One of these was a fellow who was always heard mobile on Long Island. He was one of the technical people for the repeater, and he identified by stretching out part of his call letters in a unique way. He often traveled on the Seaford-Oyster Bay Expressway, and when he did, he always indicated so by saying that he was "mobile on the S.O.B."

There were two guys who commuted on the Long Island Railroad, and who checked into the repeater on their HTs while commuting. One always identified himself as "railroad mobile," and the other as "the rolling mobile." One evening, when there was a prolonged stoppage on the LIRR, the second of these declared ruefully: "tonight, I'm *not* the rolling mobile."

There was a guy from Queens named Teddy. He always identified himself by call letters, followed by "in sunny Rosedale." Not to be outdone, another guy from Queens, Lenny, identified with the tag line, "in sunny Glendale." Evidently, Queens gets a lot of sun.

There was an old guy named Walt from Yonkers who was better known, not by his whole call, but by his nickname, derived from only part of his call, which ended in "FWZ." His nickname became "Fuzzy Wuzzy."

The Way We Were

A recent transplant from California who had moved to Queens was an airline pilot with a K6 call. He never ceased to be amazed at how "easy" it was to work DX from the East Coast. "Gosh," he once said, "Any Dilbert can work DX here!" I suppose if one of us from the East Coast moved to California, we'd be just as amazed at how "easy" it is to work Japan.

A guy in the Bronx with the call suffix "DRD" used the phonetics "Digit Rigid with a Digit." His name was Ferd, which he pronounced "Foid." When he spelled his name phonetically, it came out, "EFF EE AHH DEE…FOID."

Another chap from Roslyn had a call ending in the letters "DWK." His first name was Kiva. One night, I was told, he let out with some expletives. Forever after, he was referred to as "**D**irty **W**ord **K**iva."

A station from Levittown frequently broke into other conversations. He was always too eager, hitting his mike button too soon, so that the first part of his call was invariably chopped off. After awhile, though, everybody knew who it was breaking in. The suffix of his call was enough to identify the "eager beaver breaker."

There was a guy from Richmond Hill who worked at JFK Airport in the Calibration Lab. He operated on the repeater, but "only when the Boss isn't looking." No wonder his transmissions were so short.

Not all the people of this ilk were from New York. There was a guy from Oak Ridge, New Jersey who frequented the repeater. He had a business selling ham and CB equipment. The suffix of his call was "FZ," for which he used the phonetics, "Furshtunkeneh Zayda." (Rough translation from the Yiddish: "Stinky Gramps").

He was quite a character. Once, a friend and I visited his store to buy a Kenwood rig. I was discussing several types of commercially built antennas, when suddenly and entirely without warning, FZ turned on a little "laugh box." This was followed by a sinister laugh from our host. Without waiting for an explanation for this bizarre act, I bought the rig and quickly got the hell out of there.

Probably the funniest episode I heard on the repeater was when two old guys, both named Irv, and both from Queens, spent many hours driving around aimlessly in Harrison, New Jersey, looking for a store they called, "Harrison's Radio." While in contact with a home station, one of the two Irvs said they had asked people for directions, but "Everybody we ask don't know what we're talkin' about. Some of them don't even speak English."

Finally, the guy at the other end of the conversation figured out that they were looking for Harrison Radio, a well-known ham equipment dealer at the time. But Harrison Radio wasn't in Harrison, New Jersey; it was miles away and across the Hudson in lower Manhattan. Exhausted by their fruitless search, the two Irvs reluctantly turned around and drove back to Queens — red-faced, but wiser men, which just goes to show that you're never too old to learn.

Enforcers

There was another breed of human on this repeater, and indeed, on most others. This group I call "enforcers." These individuals would come on frequency, interrupting a QSO, only to complain that someone using the repeater was violating some FCC Regulation, or some arcane rule of repeater etiquette, and warning them that they had better stop doing what they were doing, or leave the air immediately.

The most vocal of these "enforcers" was located in a pricey neighborhood in Queens, a town through which ran the Cross Island Parkway, with a marina on the Long Island Sound. If anybody gave him an argument, he'd switch on his 100 watt amplifier, and point his 22-element vertical beam down the throat of the repeater, taking absolute control of the frequency. Another "enforcer" lived close by, in a town in Northern Bergen County, known as a haven for multi-millionaires. He was less abusive, but he, too, belonged to that privileged class of human beings that flaunt their wealth, and that look down on lesser mortals.

These "enforcers" acted like they had a personal stake in the repeater, and they actually did. I was told by an anonymous source that these well-heeled guys were generous contributors to the repeater's upkeep, and that they therefore believed themselves "entitled" to throw their weight around. The moral to this is that money may not buy happiness, but it certainly *can* buy *power.*

Romeos and Wannabes

There was a chap from Queens who was always heard from his mobile, usually driving to or from Manhattan. He frequently boasted of his female "conquests," as well as expounding on the virtues of his water bed. He wasn't alone in this category. Another "gentleman" was famous for his visits to Plato's Retreat, a then well-known sex club in Manhattan. A rumor circulated that one night he brought his HT there, and after downing a copious amount of Sangria, he allowed several female members of the orgy-in-progress to talk to others on the repeater. One of these was allegedly known as "Bobo" and the other "Bubbles."

A similar, though somewhat less controversial character was heard giving detailed descriptions of the available "prospects" at several of New York's singles-bars, rating each one's habitués according to looks, general affability, and most importantly, vulnerability.

At the opposite end of the scale, there was a guy from the Bronx that I will call "The Whiner." All he did, day and night, was complain. He complained about his rig. He complained about his antenna. He complained about the weather. When not complaining about these things, he complained (in detail) about not being able to meet any "good women." With an attitude like that, it's no wonder that he struck out so often.

Oddballs and Mystery Men

There was a certain chap from Glen Cove who insisted on calling CQ on the repeater, an act swiftly pounced upon and denounced by one of the previously mentioned "enforcers." Despite repeatedly being upbraided for this practice, he continued to do it for some time. Eventually, the "enforcer" tired of trying to talk sense to him, and finally, just ignored him. It didn't matter. No one answered his CQs anyway.

Then, a second CQer from Brooklyn came on the repeater, and he was answered by the first CQer. After a short QSO, they signed off. From time to time, these two repeated their CQing, but nobody else answered either one of them. Eventually, they were never heard again. It is believed that they returned to 75 meters.

There were a number of "bootleggers" on 2 meter FM in those days, and several were heard on the seven-three repeater. If you don't know the term, a "bootlegger" is someone who operates on the ham bands without a license, using unassigned "made up" call letters, or by "borrowing" somebody's else's call, usually without the legal licensee's knowledge.

The Way We Were

The term originates during the Prohibition era in the late 1920s and early '30s, when some criminal elements manufactured or sold illegal alcoholic beverages, usually of inferior quality. (Not all of them were really criminals, though. I'm told that one of my distant relatives once specialized in making "bathtub gin." He was the first in the family to buy a car, and later a house, so I suppose that sometimes crime *does* pay). Anyway, some of these "bootleggers" used radio to coordinate incoming shipments of booze by boat, usually from Cuba. They operated with phony ham call letters in the amateur bands, or just outside them. Soon, anyone using unauthorized calls on the ham bands would become known as "bootleggers." A more recent term for such operators is the word "pirate," or "call sign pirate."

One of the most active "bootleggers" on the seven-three repeater was a fellow allegedly from Brooklyn. He used an old call sign, the suffix of which formed a word that corresponded with the first name that he used on the air. The name listed under that call in the Call Book did not correspond to the name he used on the air, however, so it was obvious that he had just made up the call. He was an older gent, very active, and well-behaved. He just didn't have a license.

Another call frequently heard was used by a mobile station. The call legally belonged to an old timer in Wayne, New Jersey, but the operator had a youthful voice, used a different name, and gave his home location as a town on Long Island. Later, the same operator (his voice easily recognized), used several other bogus call signs, and gave his home location variously as places in Queens or the Bronx.

There was a husband and wife team that communicated frequently during rush hour for awhile, the husband on his way home from work, the wife asking what he wanted for dinner. The husband's call was of recent vintage, and valid, but the wife's call was a much older one, and not listed in the Call Book.

Another husband and wife team was heard fairly often, the husband's call legal, and Technician class, but the wife's call was the previous, expired Novice class call of the husband!

Whether any of these stations were ever caught by the FCC or disciplined by the repeater hierarchy, is unknown.

I've worked a few "bootleggers" in my time too, including one guy who held a Technician class license, but whom I worked down on 80 meters, long before Techs had HF privileges. He even sent me his QSL. There was once a kid in Ridgewood with a Novice class license who was quite active on 2 meter AM. When his Novice expired, he continued to operate on 6 and 2 meters using a Technician or General class call. I have a QSL from him too, for one of those illegal contacts! I worked another one on 10 meters that sounded legitimate, but when I looked up the call, it didn't exist, even one year later. In the late 1950s and early '60s, several local Techs were known to operate on 10 and 40 meter phone, as well. Most of those I've worked were on 2 meter FM, though.

One night, I was monitoring 146.52. A strong station came on with an old call sign, and I had a short chat with him. Several days later, another old call sign came on five-two, and I worked him, also. Neither call I recognized, and when asked their location, they were evasive. I looked up both calls in the Call Book, and they were shown as being far away, which was odd because their signals were quite strong. One, for instance, was located far up north in New York State, near the Canadian border, and I assumed that he and the other station had just moved into the local area. A day or so later, I happened to be leafing through the previous month's copy of *QST.* Both of the calls I had "worked" were listed in "Silent Keys." Is there no honor among call sign thieves?

There were two other incidents of a similar nature. One guy I worked lived in the Bronx. I sent him a QSL card, but instead of getting one back, I was told that he hadn't worked me because he wrote, "somebody ripped off my HT last year." Another local station replied to my card saying that he wasn't on 2 meters, had never been on 2 meters, and had no plans of ever going on 2 meters!

One of the strangest of all was a QSL I sent to an address on Belmont Avenue in the East Tremont section of the Bronx, confirming a contact on the seven-three repeater. The name he used on the air bore no relation to the name listed in the Call Book, so I should have been suspicious. (Later, I heard the same station using an entirely different name on the air). Anyway, my QSL card was returned by the Post Office with the following message checked off: "No mail receptacle at this address." I'm still puzzling over that one.

Celebrities and Interesting Others

The seven-three repeater was a mixed bag of oddballs, cranks, and comedians, but mostly, quite normal people, including a number of celebrities. There was a guy from Brooklyn named Sammy who told wonderful stories about his former days in show business, hobnobbing with some of the biggest names in the entertainment industry from the 1930s up to the 1950s. He reminded me of his namesake and classic storyteller, Sam Levinson. Another was a guy named "Bing," who had a quick wit, and who was quite entertaining. His humor was deadpan, and similar to that of George Burns. I couldn't help but imagine him puffing on a big cigar as he threw out his one-liners. He even sounded like George.

There were two well-known disc jockeys active on the repeater, one a part-timer on WABC and the other, a regular on WOR-FM (later, WXLO). The guy at WOR-FM used the air-name "Bob Evans," and lived in Hackensack. The one on WABC was "Johnny Donovan," and lived in a town on the Nassau-Queens border.

Perhaps the most famous regular of all was humorist Jean Shepherd, K2ORS, still doing his radio show on WOR, but about to begin his new career on New Jersey Public TV, as well as his later career making movies. He was living in one of the western counties of New Jersey at the time, but he regularly commuted to New York City. I had worked Jean on 20 meter SSB previously, and worked him again on the repeater. He was using a Tempo FM-P, a newly introduced, solid state HT.

I had never heard a "pileup" on a repeater before, but when Jean came on the air, there was a long line of stations waiting in line to work him.

Along with Jean was an old time, famous songwriter, Dave Mann, K2AGZ, who lived in Kinnelon. Dave was also a well-known pianist and arranger, and the official White House pianist for President Harry S. Truman. The first time I worked Dave was when he had just re-entered ham radio after a long absence. He had become re-licensed as a Novice with the call WN2DFR while located in the Riverdale section of the Bronx. Later, I worked Dave several more times on 20 meter SSB as K3WOO/2, and again on CW, where he showed a high level of skill at the code. He was always interesting to talk with or just listen to. His stories about the music business and about working for Presidents Truman and Roosevelt before him were priceless and hilarious, but cannot be repeated here.

One time, I am told, Dave was at the Heathkit store on Broadway in Fair Lawn, and while there he demonstrated their electronic piano by playing a medley of standards, drawing a large crowd of appreciative hams and others in the store. I wish I had been there to witness that. Dave once gave a friend of mine a free 40 meter beam, requiring only that it be picked up at his home. Three of us drove out to Kinnelon, and were treated to the beam, Dave's hospitality and good humor, and even a mini piano recital -- a day I shall never forget. He was quite a gentleman, and one of the most intelligent, interesting an unforgettable people I've ever met through ham radio.

One-time well-known pianist, composer and band leader Raymond Scott, W2MEZ, was another operator heard on seven-three.

Bill Pasternak, then WA2HVK of Brooklyn, and later WA6ITF, was also a regular on the seven-three repeater, along with his long-time pal, Larry, WA2INM. Bill was the founder and producer of Amateur Radio Newsline.

Harry Dannals, then W2TUK, and later W2HD, was another seven-three operator. Harry was President of the A.R.R.L. from 1972 to 1982.

Dick Cowan, WA2LRO, was another celebrity. He is the former Publisher of *CQ Magazine,* and former Advertising Manager of *S-9,* a CB publication.

Another celebrity, but a "behind-the-scenes" celebrity, was a lady living in Englewood, who was the producer of several very funny and wildly successful TV commercials, the most famous of which was the unforgettable Alka Selzer commercial-within-a-commercial about "speecy spicy meatballs." Link here…

https://www.youtube.com/watch?v=48TewJlc6BA

Another guy I worked there was Barry, W2LNI, the onetime owner of Barry Electronics. Barry was an avid yachtsman. According to a report heard on the repeater, one day, while out on the Long Island Sound, a huge wave swept him off the deck of his cabin cruiser, and he drowned. The business was carried on for another ten years or so by his widow, Kitty, WA2BAP, who was also active on the repeater.

The last of these was a guy I worked one night while he was mobile in Greenwich, Connecticut, while en route to his home in New Hampshire. His name was Wayne, his call was W2NSD, and he was the man behind *73 Magazine.*

Apocalypse Notwithstanding

Most of the time, the seven-three repeater was really "where it's at," in terms of repeaters in the New York City area. But there were still problems. Despite the valiant efforts of the repeater's inner circle to keep things under control, things turned for the worse again by the mid 1970s. The jammers were back, along with the "music players," "kerchunkers," illegal "bootleggers," breakers who only wanted a signal report, and "Adam 12 types," still driving around pointlessly looking for something — *anything,* to report to the authorities. It was about this time when the repeater's call sign changed to WR2AAA. [Ed. note: WR was a new prefix just for repeaters.]

By this time, I had become pretty bored with what was left of the repeater's regulars, so I shut down my Clegg FM-88, and kept it off for a long time, returning to my first love in ham radio, DXing.

The Way We Were

It wasn't until sometime in the mid 1980s that I turned on the 2 meter FM rig again. This, no doubt, was due to some sort of mental lapse on my part, manifesting as a perverse curiosity about what forms of craziness might be befalling the seven-three repeater, the Paramus repeater, or other repeaters in the area. Nevertheless, I confess I did it -- God only knows why.

I had just purchased the latest Repeater Directory, so I started my inquiry at the low end of the FM repeater band at 145.11, and worked up in frequency to above 147 Megahertz, expecting to hear lots of activity. What I found astonished me. Among all the supposedly occupied repeater frequencies, I heard only two of them active. The conversations on them were brief, and after just a couple of minutes, all was quiet again. I then backed down in frequency from above 147 to the low end again, and heard absolutely nothing. I wondered if my antenna was still connected. It was. I transmitted briefly, and saw full output indicated on the rig's internal meter. What had happened? Where was everybody?

In desperation, I tuned down to 146.73, in hopes of some entertainment. I heard nothing whatever. I keyed up the repeater (it was still "open"), and saw at once that the signal was much weaker than I had expected, and it had a different ID. The Repeater Directory placed it in Brooklyn now. What? What happened to that big signal from lower Manhattan? It was gone.

I was disappointed. Where were the jammers? Where were the "kerchunkers?" Where were the mobiles playing "Adam 12," reporting flat tires on the Long Island Expressway? Where was that guy with the waterbed, and the guy whining in the Bronx? I figured they must have died, moved away, or found other ways to occupy their time.

That night, I listened to a repeater in Morris County. After a long silence, a traffic net started up. It was highly disciplined, and quite boring. I moved down the band a bit, and listened for a well known repeater on Long Island. After another long silence, a net came on this frequency, too. First, it was a general club meeting on the air, and all they talked about was club business. When the meeting net had ended, a technical net started up. The topic was operating amateur television on the 10 Gigahertz band. This was about as exciting to me as watching my crabgrass grow.

The wild and wooly days of 2 meter FM were over. They had been replaced by nothing to hold my interest. I turned off the rig again, and pushed the rig and its power supply under my bed. I kept it there, unused, for another thirty years.

A couple of years ago, out of another of those bouts of morbid curiosity or sheer perversity, I dragged the 2 meter rig and its power supply out from under the bed. They had acquired a thick layer of dust, but appeared to be otherwise well preserved. I dusted them off and set them up again in my shack. Then, I built a simple quarter wave ground plane antenna, which I placed in the attic, using some old RG-58 coax to run down to the rig. I cautiously turned on the power supply, waiting for sparks to fly, but none did. Amazingly, after all those years, everything still worked.

Once again, I surfed the FM frequencies, starting at the low end of the band and working up. Again, I heard nothing at all, and I was disappointed, as before. Then, after an interval, I returned to the frequency of that famous repeater on Long Island. Two mobiles were chatting on their way home from work. Within minutes, someone started jamming, and my ears perked up, attentively.

(Continued on next page)

FLARC Again Hits The Road: A Visit To iHeart Radio NNJ Studios

Thanks to Dave N2AAM the club has worked out a visit to iHeart Radio the morning of Saturday, October 19th with additional details to follow.

The tour will consist of the iHeart radio complex in Franklin NJ which consists of WSUS, WNNJ and Max106 radio studios as well as the WTOC AM transmitter in Newton.

Our tour guide will be Tony DeNicola WA2IHZ who doubles as the station manager.

The plan is to visit in the morning with perhaps a diner stop nearby to recap our visit.

If you're interested, let Ed WX2R know. He'll coordinate with Dave and we can all put the FLARC travel band back together again.

KD2DRS… Meet K6WAO

FLARC member Lee KD2DRS got to meet AMSAT President Joe Spier K6WAO, at the Small Sat conference in Logan, UT in early August.

L to R: Lee KD2DRS and Joe K6WAO

The Way We Were

Then, a station came on, calling another station that did not answer. The station he called had the call letters "The Duck," and the calling station used the call letters "The Goose." "The Goose" was quickly told to get off the repeater because he was "banned." A shouting match ensued, with threats and counter-threats of hiring lawyers, and while this was going on, someone else came on the repeater and jammed them both.

I poured myself an icy-cold glass of my favorite imported beer, leaned back in my comfortable armchair and smiled — relieved now, to know that 2 meter FM hadn't really changed at all, and that all was right with the world.

Until next month, and an entirely new topic…

73,

Fred, W2AAB

What Is It? Where Is It?

But of course…. it's the NOAA Weather Station in Central Park in New York. A reminder that SKYWARN is the topic of our November Speaker Series program and your chance to become a SKYWARN spotter.

NOAA Weather Station in Central Park

FLARC Does North American QSO Party

FLARC took part in this annual contest on August 17th with W2MSA, N2AAM, K2KCC, W2ABE at the operating controls and KD2KLN, W2JC, WX2R, WO2W, KC2LTM assisting.

Quick results were 95 Contacts in four hours = 24 contacts/hour (both stations combined) and 31 of the 50 states contacted. Both FLEX stations worked very well. We even had the call signs of stations from the spotting network displayed on the Flex 'waterfall' at the exact frequency where they were spotted!

All operators were pleased that they became much more familiar with using the new Flex radios, especially with the N1MM+ logging and Telnet spotting integrated with the radios.

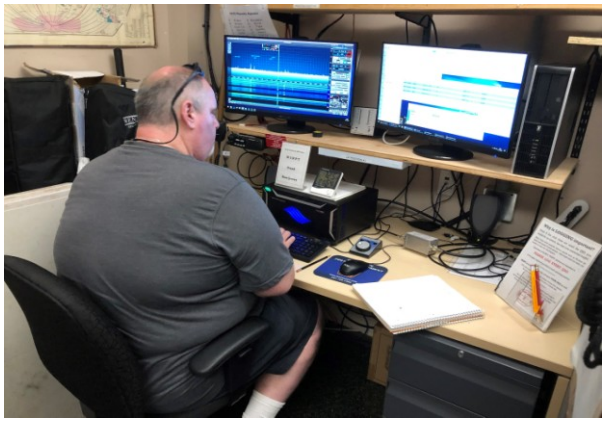
Band conditions were not all that great, but we focused on the two most productive bands -- 20 meters and 40 meters. The new 'monster beam' was on the 20 meter station (position 4) and the OCF dipole was on the 40 meter station (position 1).

The scorecard is below.

Next up is the NJ QSO Party on September 21st.

We owe a BIG THANKS to Brian, KD2KLN, for offering to open the club and oversee the day's activity.

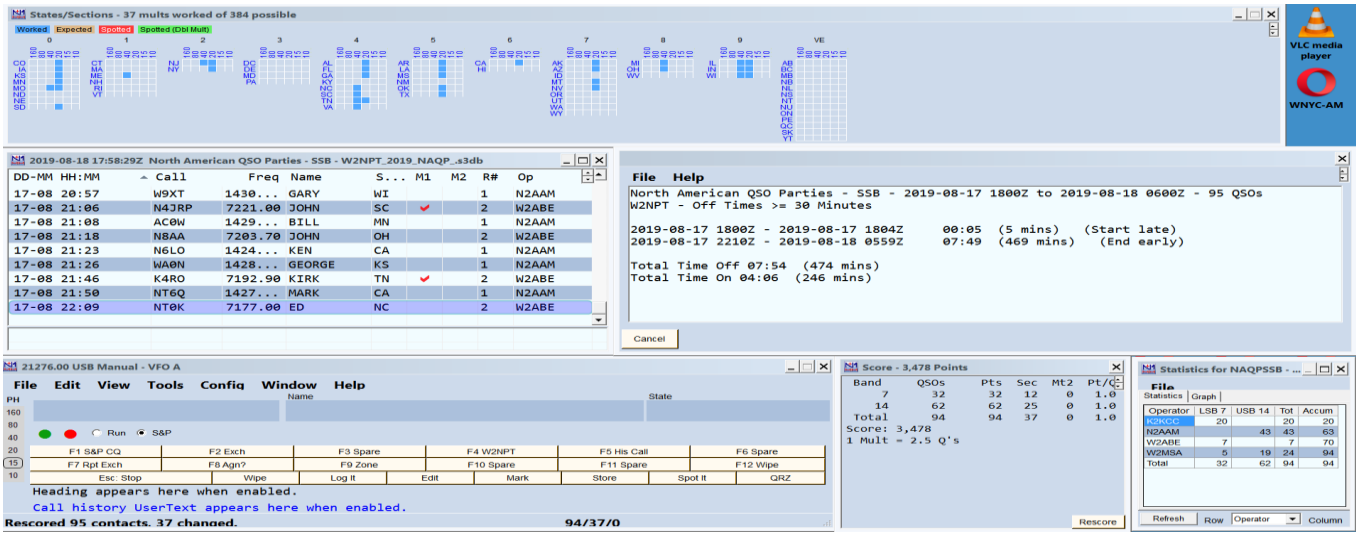
And thanks also to Jim, W2JC, who came in on Friday afternoon and set up the Flex radios and the logging and spotting software so it was all ready to go on Saturday.



K2KCC at Position 1

N2AAM and KD2KLN at Position 4

The North American QSO Parties are favorites of beginners and seasoned operators alike. The NAQPs are low-power only (no amplifiers allowed) which makes for a lot more breathing room on the bands. Small stations can generate very effective "runs" in the NAQP contests. Multipliers count once per-band, which makes for an exciting format, as multipliers can be "moved" from band to band. The NAQPs allow stations from all parts of North America to be in the running for the top spots. The 12 hour format allows participants to do some great contesting, yet still have time for other activities during the weekend. Participants can enter in the single op or multi-op categories and also have the opportunity to combine up to five separate single op scores into a team score.



Tim Duffy K3LR and His Superstation
Highlights FLARC September 20th, 2019 Speaker Series

As part of our 2019 FLARC Speakers Series, the club is honored to have one of the top amateurs in the country on our program. The program is titled: *An Inside Look At A Superstation.*

Tim Duffy K3LR will discuss his superstation, which is located in West Middlesex PA, on Friday, September 20th at the Fair Lawn Senior Center, 11-05 Gardiner Road in Fair Lawn beginning at 7PM. The program is open to all and refreshments will be served.

This will be a presentation from Tim's station via Skype,
a first for FLARC in this long running series of speaker programs.

Tim has been an active amateur radio operator for 47 years. He has hosted 132 different operators from around the world as part of the K3LR Multi-Multi DX radio sport contest efforts since 1992. He was the ARRL Atlantic Division Technical Achievement award winner in 1998.

Tim was moderator of the Dayton Contest Forum for 10 years and has been moderator of the Hamvention Antenna forum for 34 years. He is a founding member and current President of the North Coast Contesters. K3LR serves as chairman of Contest University (13 years), the Dayton Contest Dinner (27 years), chairman of the Top Band Dinner – as well as coordinator of the Contest Super Suite (34 years) in Dayton during the yearly Hamvention.

He is founder and moderator of the popular RFI Reflector (RFI@contesting.com) since 1999. He has been a guest on Ham Nation many times. Tim was a member of Team USA at the World Radio Team Championship – five times, most recently in Germany during WRTC2018 with Sandy, DL1QQ. Tim serves on the board of directors of the World Wide Radio Operators Foundation (WWROF) as Chairman and is President Emeritus of the Radio Club of America (RCA). Tim is President of the Mercer County Amateur Radio Club (W3LIF).

Tim was elected to the CQ Contest Hall of Fame in 2006. He was honored with the prestigious Barry Goldwater Amateur Radio service award by the RCA in 2010. K3LR was honored as Hamvention Amateur of the Year in 2015 by the Dayton Amateur Radio Association. Tim is the Chief Operating Officer and General Manager at DX Engineering. He is a graduate of the Pennsylvania State University.

So save the date -- September 20 -- for an inside peek at one of the most outstanding amateurs in the country today and a personal tour of his world-class operation.

Tim Duffy K3LR

Larry Makoski W2LJ Focuses on QRP
In Highlighting The October 18th FLARC 2019 Speaker Series Program

Larry Makoski W2LJ will feature the October topic "You, QRP and the Great Outdoors." It covers the basics of QRP and portable QRP operations. Larry is one of the hobby's leading QRP enthusiasts and is certain to get you out of the shack and into the field with low-power operation.

Licensed as a Novice in 1978 as KA2DOH, he upgraded to General in 1979. Advanced came in 1983 with a call sign change to N2ELW and Extra was finally realized in 1994 and then applied for W2LJ in 2000. He'd always been a CW operator and while he always dabbled in QRP since Novice days, he went full blown 100% QRP in 2003.

Larry has been the President of the Piscataway Amateur Radio Club, is now the current Vice President of the South Plainfield Amateur Radio Club and the Secretary of the Electronic Technology Society of NJ (K2ETS - the Watchung repeater). He maintains a blog - "QRP - When you care to send the very least" at https://w2lj.blogspot.com/

Larry Makoski W2LJ

An Award For FLARC

The club just received the certificate below for working several special event stations in Spain, commemorating the 70th Anniversary of the Spanish Amateur Radio Union ... a big thanks to all those who got the stations into our log and off to Spain. Another certificate for the FLARC wall!

Bob N2SU Goes To Huntsville

After reading and hearing about it, I decided to try a new ham radio experience: The Huntsville Hamfest. Having been to Dayton 24 times dating back to 1992, I am used to big crowds and this gathering did not disappoint. Huntsville is the third largest convention behind Dayton and Orlando and attracts around five to seven thousand people to north Alabama.

Why Huntsville? Like Dayton, it is a local hamfest dating back to the 1950s (1954, to be exact) that just kept growing and growing. With the presence of the NASA Space and Rocket Center, the city is a bit more cosmopolitan than you would expect and is easy to get to. Flying direct is a bit expensive, so I opted to fly to Nashville and rented a car for the 90-minute drive south.

One of the things that makes this hamfest appealing is that everything takes place under one roof, so the oppressive heat of an Alabama August is not an issue. The air-conditioned Von Braun Center has hosted the convention since 1980 and has plenty of room for expansion.

There are the tables of used equipment like every hamfest, and plenty of forums. Topics range from ARRL to SDRs, antennas, youth and education (Carole Perry), contesting and propagation.

Although the displays may not be as big as Dayton, the major manufacturers and vendors have a strong presence. Elecraft, Icom, Yaesu and Kenwood have booths and you can buy gear from outfits like HRO and R&L.

Accommodations are manageable and close to the venue. The Embassy Suites is connected to the VBC by an indoor walkway and the Spring Hill Suites (where I stayed) is just a few blocks away.

Bob N2SU Goes To Huntsville

The convention is definitely "ham radio with a southern drawl." There were call letter plates from all over the southeast, and from my own experiences on the air, these folks are active. One of the great things about this hobby is that you can strike up a conversation with a complete stranger, and you never know where it'll go (on air or in person). I had a nice conversation with a fellow who put a TV station on the air in Alabama, and another with a ham from Georgia who worked as a Trade Representative for the Canadian government for over 20 years.

It takes about three hours to go through the entire flea market on Saturday. It thins out quite a bit on Sunday, but you can still do well. I made no major purchases, just some antenna accessories that I could carry in my suitcase.

It was an enjoyable time in an area I've never visited, and I'd definitely consider going next year.

DE Bob N2SU


Huntsville

Did You Catch This?

All but one of those who participated in the May 23 Red Cross emergency messaging session from NNJ were from FLARC!! TNX to W2TTT, W2KBF, WU2S, W2NZ and N2JLF. See September 2019 QST page 69 for the details.

The other NNJ op was Rob KA2PBT, former ARRL NNJ SM.

FLARC Goes To Boxborough

Hurricane Dorian notwithstanding, the 36th iteration of Boxborough was an interesting event on September 6-8 in Massachusetts.

Rebranded the Northeast HamXposition @Boxboro, it was the usual mix of flea market, workshops, training sessions and good old camaraderie.

Three FLARCers were seen in attendance –
Kai K2TRW, Bob N2SU and Ed WX2R.

The conference seemed quite well attended despite the threat of bad weather. With vendors both indoors and out it was a good opportunity to see gear both old (very old) and new. The organizers put together a Ham Radio Bootcamp aimed at new and inactive hams to garner more interest – a goal paralleling that of the ARRL (this is also the ARRL New England convention BTW).

Conference topics focused heavily on public service but there was lots of content on fox hunting, satellites, DX, QRP and antennas. One new topic was on estate planning which was not lost on many hams and was well attended. Bottom line on this topic is not to believe that your gear, books and QSL's have much aftermarket value to your XYL when you reach the afterlife. Think penury not prosperity.

The ARRL forum discussed an update on the long standing HOA issue as well as league plans to introduce a new magazine targeted to new hams.

The outdoor vendor space was well attended

FLARC Goes To Boxborough

All in all, a pretty good show. The hotel facility is beginning to show its age but works well considering the logistics of people, equipment and entertainment.

The other drawback is that the hotel location is rather isolated — there is nothing food- or accommodation-related nearby so plan for a 10-15 minute trip elsewhere if you want to go out to eat or avoid the hotel price point. And you'll need a day to adjust your ears to getting used to the flat New England accent and plethora of "1" calls.

Conventioneers tend to be conventioneers so once you go, you'll probably be back. The session topics were the draw for me and it was good value for information received. And the best sessions are always right next to each other so you can't do them all. I'll probably go back next year.

DE Ed WX2R

Too busy to be seen together
at least their cars got together!

The inside vendor space attracted large crowds as well

A Generous Gift To FLARC!

We often focus on monetary gifts or gifts in kind to FLARC. Thom W2NZ wanted the club to know about a "quiet" donation made by Bennett KO2OK recently. He recognized that the Club was serious about video, and as a result, these two SD cards were given to us. Their value was $150 each!!

Thanks much Bennett—your generosity is gratefully accepted!! And thanks to Thom for recognizing a fellow member.

The KO2OK donation

Congratulations To Hal Kennedy N4GG

Hal is featured in the new ARRL publication *HF Dipole Antennas For Amateur Radio* with an article entitled "The N4GG Array".

Our monthly contributor does it again!!

FLARC Proof Of Performance

Why is FLARC New Jersey's most exciting radio club? Here are just a few reasons so far this year:

- Field Day at Memorial Park
- Winter Field Day
- World Amateur Radio Day special event
- Earth Day At Great Falls special event station
- Garretson House special event station
- Memorial Day parade public event
- Portable Day(s) with BARA
- Fair Lawn Street Fair(s) public event
- Independence Day Fireworks public event
- Vintage Night
- "Kids Day" public event with TCRA
- North American QSO Party
- NJ QSO Party
- Foxhunts
- Summer VANFEST at W2DLT
- Field Trip to iHeart Radio

Plus:

- Thursday Night open house and CW class
- RACES public service
- ARES public service
- Monthly VE sessions
- Projects such as end fed and 2m antennas
- Annual member interest survey
- Weekly Monday "Near and Far" Net

Plus:

- 45 consecutive months of speaker programs including K1JT in 2019!
- New equipment in the shack!
- New antennas on the roof!
- Accomplishing Worked All States award
- And…a clubhouse!!

That's why FLARC is the best club around!! Join us with more activities, speakers and projects to come!

Theoretics Demystified (Continued)

Ribbon microphones are not suitable as reproducers due to the delicacy of their construction.

Another microphone that can also serve as a reproducer is the crystal type whereby a diaphragm is connected to a Rochelle salt or piezio electric crystal that when flexed, produces an electrical output varying with the flexing of the crystal and thus produces an audio output. The differences between the dynamic and crystal microphones/reproducers is that the dynamic type has a much better frequency response especially at the low end but has a lower output voltage and a lower impedance to match. The crystal type has a higher output, a limited frequency response and high impedance. The 'piezo' elements can also be used as a reproducer as in a smoke detector or a backup alert.

Lastly there is the condenser or capacitive microphone which has a delicate diaphragm suspended between or very near to a stationary plate whereby a high voltage is applied and as audio is applied to the floating diaphragm the capacitance between the two changes in response to the sound waves applied to it. The early condenser mikes required a high voltage phantom supply and special circuitry to extract the audio signal. In the '70s a condenser mike was invented that had a permanently charged floating diaphragm that eliminated the need for a high voltage phantom supply. A bias voltage is generally still needed to supply power to the FET transistor that is needed to extract and amplify the audio signal. This bias can be supplied by a third wire or can be sent up the audio output wire. The characteristics of the condenser mike are excellent sensitivity and wide frequency response.

Most all speakers have a voice coil and cone but about 100 years ago RCA, among others, made speakers that used a steel plate suspended between two coil assemblies and had a pin that coupled the vibrating armature to the cone thereby producing sound. GE made some transistor radios using a miniature version of the technique which eliminated the need for an output transformer. An interesting bit of history is that before permanent magnet speakers were possible, the magnetic field for the voice coil was produced by coil charged with DC as part of the power supply (with the choke in a pi network in the power supply).

Not to forget, but one more type of reproducer was basically an earphone element connected to a horn thereby making a small sound louder. This scheme was used in early radios and the reproducer was connected between the plate of the output tube and the b+ power supply.

That's it for now, 73 from Fred Wawa, W2ABE.

Fair Lawn RACES/ARES Corner

ARES through the ARRL is undergoing a 21st century makeover - the timing can't be any better. Please see the ARRL-ARES article linked below.

New ARES plan aligns ARES with the needs of Served Agencies:
http://www.arrl.org/news/new-plan-aligns-ares-with-the-needs-of-served-agencies

Please sign up for various nets and activities taking place at the following email address: https://arrl.volunteerhub.com/lp/nnj

The FL-ARES KB2FLA Net takes place every Wednesday at 7:00 PM on the FLARC Repeater. However, one Net per month is replaced with a video learning session provided by Randy WU2S. This month, we may have a video session on the 3rd Wednesday - September 18th, in place of the FL-ARES Net. Details regarding the video session will be provided in an upcoming email to our membership. Please join us every Wednesday for any updates, messages or activities which may take place. FL-ARES would like to thank the FLARC for the use of its repeater.

Now, getting back to FL-RACES:

Our next FL-RACES KB2FLR net will take place on Wednesday, September 11th at 1920 hours. Please make a note of the time. The Fair Lawn ARC Repeater is used (RX 145.47 MHz / TX 144.87, PL TX Tone 167.9 Hz). Thank you to the Fair Lawn Amateur Radio Club for permitting FL-RACES for using the repeater.

FL-RACES is part of several RACES groups which operate within Bergen County and from time to time has training opportunities with Bergen County RACES.

On Friday, September 20th, at 1900 "Disaster Scenario Organization Planning" training will take place at the BC-OEM - 285 Campgaw Road, Mahwah, NJ. Here is the training link:
http://www.bcnjraces.org/20190920-TRAINING.pdf

The volunteer efforts of our members are very much appreciated.

Our monthly meetings usually take place right after the FLARC business meeting. Please join us for the next FL-RACES meeting.

Continued on next page

September 6, 2019 Meeting Notes

President Brad KM2C called the meeting to order at 7:33 p.m. The members rose and recited the Pledge of Allegiance. Secretary Randy WU2S called the roll of officers and trustees and all were present. The meeting had a quorum to conduct club business. President Brad KM2C asked if there were any visitors or new members present. There were none.

Secretary Randy WU2S announced that the minutes from the August meeting were sent to all members of record and published in the club's newsletter, The Resonator, which is on the club's website at http://newsletters.FairLawnARC.org . He asked the members present if there were any corrections or amendments needed. There were none so Nomar NP4H moved to accept the minutes as published and John W2JLH seconded the motion. The motion passed by acclamation.

Treasurer Al WA2OWL read this month's Treasurer's Report. Judith KC2LTM moved to accept the report as presented and Don N2PRT seconded the motion. The motion passed by acclamation.

Secretary Randy WU2S reported for the Tech Committee that the computer at operating position #1 had failed. It appears that the hard disk drive will not boot. After the business meeting, the computer was replaced and operation of the Flex radio at position #1 is normal. Randy said that the radio at operation position #2 was replaced and is operating normally. He said that Jim W2JC discovered that the previous Icom IC-746pro at that position has an inoperative CI-V interface and that prevents the radio and computer from working together. Operating position #2 is restored to full health. Both Randy and Jim made contacts on FT8 just prior to the business meeting.

Randy noted that the Tech Committee plans to install several new Ethernet cables to the roof soon. He said that we have all the materials and tools needed. When Paul W2IP has time available, he and Randy will perform the installation.

President Brad KM2C said that we might replace the repeater antenna at the same time. President Brad KM2C noted that he will investigate getting the IC-746pro with the bad C-IV interface repaired.

September 6, 2019 Meeting Notes

Jim W2JC reported for the Publicity Committee. He said that the monthly guest speaker list is posted on the club's calendar (http://calendar.FairLawnARC.org) and listed in each month's Resonator, the club newsletter.

The scheduled speakers are:

September 20 – Tim Duffy K3LR will talk to us about his "superstation" in Pennsylvania. Tim is a well-known radiosport contester, the founder and chairman of Contest University (CTU) and the Chief Operating Officer of DX Engineering which sells a wide range of amateur radio equipment and accessories.

October 16 – Dr. Howard Michel, WB2ITX, the ARRL CEO will speak about the state of amateur radio in his first address to a New Jersey club.

November 15 – George Sabbi KC2GLG will tell us about SKYWARN, the amateur radio weather observation and reporting service.

December 20 – Ria Jairam N2RJ, ARRL Hudson Division Director.

January 17, 2020 – Florencia Pierri KD2PHZ, who is the Sarnoff Collection Curator at The College of New Jersey (TCNJ) will speak to us about the early days of radio.

February 21, 2020 – Ed WX2R will present the results of the annual FLARC membership survey.

Jim announced that our Portable Day event in cooperation with BARA is on Saturday, September 14 in Memorial Park starting at 9:00 am. The Fair Lawn River Road Street Fair is on Sunday, October 20. We are planning a field trip to iHeart Radio in Sussex, NJ. Jim noted that Ed WX2R plans to open the club for operating between 9:00 am and 1:30 pm on the Saturdays when we hold VE exam sessions. Ed also plans to open the club on Tuesday evenings from 18:30 to 21:00 during the Winter, if there is enough interest in using the club facilities.

September 6, 2019 Meeting Notes

Jim reminded all that the annual FLARC auction is the Friday after Thanksgiving on November 29. Jim said that our annual Holiday Dinner and election of officers will be at the Senior Center on Friday, December 6.

Dave N2AAM reported that our Field Trip to iHeart Radio will be on Saturday, October 19. The location is in Franklin, NJ on Route 23. This location houses the studios of radio stations WSUS, WHCY and WNNJ. The trip may include a visit to the WTOC 1360 AM transmitter site not far away. Please contact Ed WX2R if you are interested in going on this field trip. We need an accurate headcount so that our hosts know how many people to expect.

Jim W2JC reported on our social media. The web site is active. Jim noted that Thom W2NZ recently produced a new video description of FLARC which is now on the home page of our website. Jim said there are new comments and items for sale listed on the blog, at http://blog.FairLawnARC.org.

Turning to his role as QSL Manager, Jim reported that we have 88 confirmed DX countries, so we only need 12 more to enable us to apply for a DX Century Club (DXCC) award for W2NPT.

Thom W2NZ reported on our YouTube channel. We added 4 new subscribers in the past month, giving us a total of 310. We need 1,000 subscribers to enable us to link our channel to our club website. Please share our YouTube videos with others and ask them to subscribe.

President Brad KM2C announced that Fred W2AAB and George W3EH are still running the CW code classes on Thursday night. Brad noted that he plans to schedule some soldering classes and an introduction to Software Defined Radios using our Flex 6400 radios sometime soon on Thursday evenings.

Vice President Van W2DLT said that the Tim Duffy presentation on September 20 will be via Skype. Thanks to Ed WX2R and Thom W2NZ for providing this capability.

September 6, 2019 Meeting Notes

Vice President Van W2DLT announced that the New Jersey QSO Party will be held on Saturday September 21 as a one-day event. We plan to operate W2NPT again during this contest. The contest runs from 12:00 noon to 21:00. This is a good opportunity to learn how to use our new radios. If you operate from home, you can aggregate your score with W2NPT to increase the club's totals. (If you do not know how to do that, contact Jim W2JC).

Vice President Van W2DLT said that many members meet after the business meeting at a local diner for food and conversation. All are welcome to join in.

Bennett KO2OK announced that the annual VHF contest starts on Saturday, September 14 at 2:00 pm and runs until Sunday, September 15 at 11:00 pm. This is for operators on 6 meters and up. There will be FT8 operations on 6 and 2 meters.

Karl W2KBF reported that he will conduct a transmitter fox hunt on Portable Day, September 14 starting at 12:00 noon. The fox transmitter is on a frequency of 146.565 MHz. This is another opportunity to use your tape measure beam antenna if you built one during the recent project activity.

Brian KD2KLN announced that the Monday night net is running well and needs volunteers to act as the net control station for the September 30 session. Please contact Brian to volunteer. [techrat@obsolyte.com] Brian said that anyone can check into the net via Echolink too.

Thom W2NZ asked about obtaining a USB drive and postage to send a copy of a video to one of our presenters. President Brad KM2C recommended that Thom post the video to Dropbox for easy retrieval.

Steve WA2BYX asked if the club would consider selling food and drinks during the guest speaker events at the Senior Center. A discussion ensued and it was concluded that the preparation, cleanup and food storage outweigh any small benefit from the funds raised through sales. Treasurer Al mentioned that he always puts the tip bucket out at these events and usually receives a few dollars to offset the cost of coffee and cookies.

September 6, 2019 Meeting Notes

Karl W2KBF reminded members that at the next business meeting in October, the Nominating Committee of Trustees Don N2PRT and Skip KD2BRV will present their recommended slate of officers and trustees. If you want to run for a position, talk to Don and Skip, or have someone nominate you from the floor at the October meeting.

> [Subsequent to the business meeting, Secretary Randy reviewed the current FLARC Bylaws and advises members that the Nominating Committee is appointed in October and the committee's slate of candidates is reported at the November business meeting. Also, during the November business meeting, nominations from the floor may be made for any of the open positions]

Fred W2AAB suggested that we consider running a hamfest as a fundraising event. A discussion of alternatives ensued. President Brad KM2C said that the FLARC Council would consider the feasibility of running a hamfest in February or March to not compete with our annual auction or other local hamfests. He noted that conducting an event properly depends on the number of people who are willing to put in the effort to make it worthwhile.

Having no further business, President Brad KM2C asked for a motion to adjourn. Brian KD2KLN so moved and John W2JLH seconded the motion. The members present voted in favor and the meeting was adjourned at 8:21 p.m.

Respectfully submitted,

Randy WU2S,
Secretary

Someone Couldn't Wait For Tim Duffy's K3LR September Presentation At FLARC!

FLARC's own Tom and Ben McCabe, N2AXX and W2AMP, during their summer road trip to Chicago, made a quick detour for a photo op at K3LR, Tim Duffy's super-station antenna farm in West Middlesex, PA.

Wish you were there?

You can be on September 20th
at the Fair Lawn Senior Center at 7PM!

K3LR

N2AXX and W2AMP

Ed-itorial:
Midsummer's Night Dream

The afterglow of this year's Vintage Night was something for the club to savor. What started last year as an opportunity to focus on club history while getting some old gear on the air at the same time has seemingly taken on a life of its own with this year's edition.

Was it 60 year old guys playing with 70 year old equipment or the other way around? ☺
Didn't matter at all.

Is there interest in this topic? I'd say so, with nearly 45 members and guests attending the Senior Center on a hot Summer night when most other clubs don't even bother to meet. And lots of guys around the country listening for us by getting the word out that Heathkits and Drakes were on the air. Like a field of corn in Iowa during August, there were a lot of ears out there.

The work of this "committee" is highly contagious. Already ideas for the 2020 program have ranged from 1970s gear to QRP to gear from the 1940s. Such a problem to be solved! I can't help but think that we have created an addition to the FLARC calendar for years to come. The hard work of this group consisting of Fred W2AAB, Steve WI2W, Gene WO2W, Steve WA2BYX, Steve KA2YRA, Bennett KO2OK, Thom W2NZ, Paul WA2IIE, Jim K2ZO, Brian KD2KLN, and Don W2JEK made for an exciting, fun and educational evening.

I felt good for the hard work done by these guys and proud to be a FLARC member.
I hope you feel the same way.

DE Ed WX2R

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Portable Day Is Coming!!

Autumn Portable Day with our buddies over at BARA will be held on **Saturday September 14th** beginning at 0900 until conclusion at Memorial Park in Fair Lawn. Everyone is invited and BARA provides the food.

To add to the fun, Karl W2KBF has announced a mini-fox hunt at the site beginning at noon. Be sure to bring those newly built tape measure antennas and find the ever-elusive fox.

So save the date and let's play ....

Fair Lawn RACES/ARES Corner

If you are interested in joining the Fair Lawn RACES, please contact me. You don't have to be a Fair Lawn resident to be a part of Fair Lawn RACES.

For information regarding Bergen County RACES, please go to http://www.bcnjraces.org.

Thank you very much. 73.

David KD2MOB
mrdgot@aol.com

Contact:
Ed Efchak, Public Information Officer
eefchak@gmail.com
802-282-6700

September 9, 2019

FOR IMMEDIATE RELEASE

Portable Day Demonstrates Emergency Communication Prowess of Area "Ham" Operators

Members of the Fair Lawn and Bergen Amateur Radio Clubs will conduct a training exercise in the use of alternative sources of electrical power as part of its bi-annual joint exercise between the two clubs.

"Portable Day" will be held on **Saturday, September 14th from 10 AM until 4 PM**. The venue will be Memorial Park, Avenue of Heroes/Berdan Avenue in Fair Lawn. The event is free and is open to all area amateurs regardless of club affiliation.

Using alternative electrical power sources such as batteries, solar, and generator power, the event helps to showcase the science and skill of Amateur Radio. This event is open to the public and all are encouraged to attend. Portable Day demonstrates ham radio's ability to work reliably under any conditions from almost any location and create an independent communications network. Ham operators train and prepare to support emergency communications by providing radio links when other communications channels aren't working.

An addition to the day's activities is the introduction of a radio "fox hunt" at noon around the grounds of Memorial Park and adjacent Memorial Middle School.

Anyone may become a licensed Amateur Radio operator. There are more licensed US operators today than ever before. And with clubs such as the Fair Lawn and Bergen Amateur Radio Clubs, it's easy for anybody to get involved. The Fair Lawn club meets every Friday at the Community Center located at 10-10 20th Street in Fair Lawn at 7 PM. The Bergen Amateur Radio Club meets the first Sunday of every month at The Senior Center, 350 Hudson Avenue, Township of Washington, NJ 07676 at 7:30 PM

For more information contact Ed Efchak at 802-282-6700 (eefchak@gmail.com) or visit **www.arrl.org/what-is-ham-radio** or the local club sites at **www.FairLawnARC.org** and **www.bara.org**

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